

UPLAND WILDLIFE

HISTORICAL SUMMARY OF POPULATIONS AND HARVEST

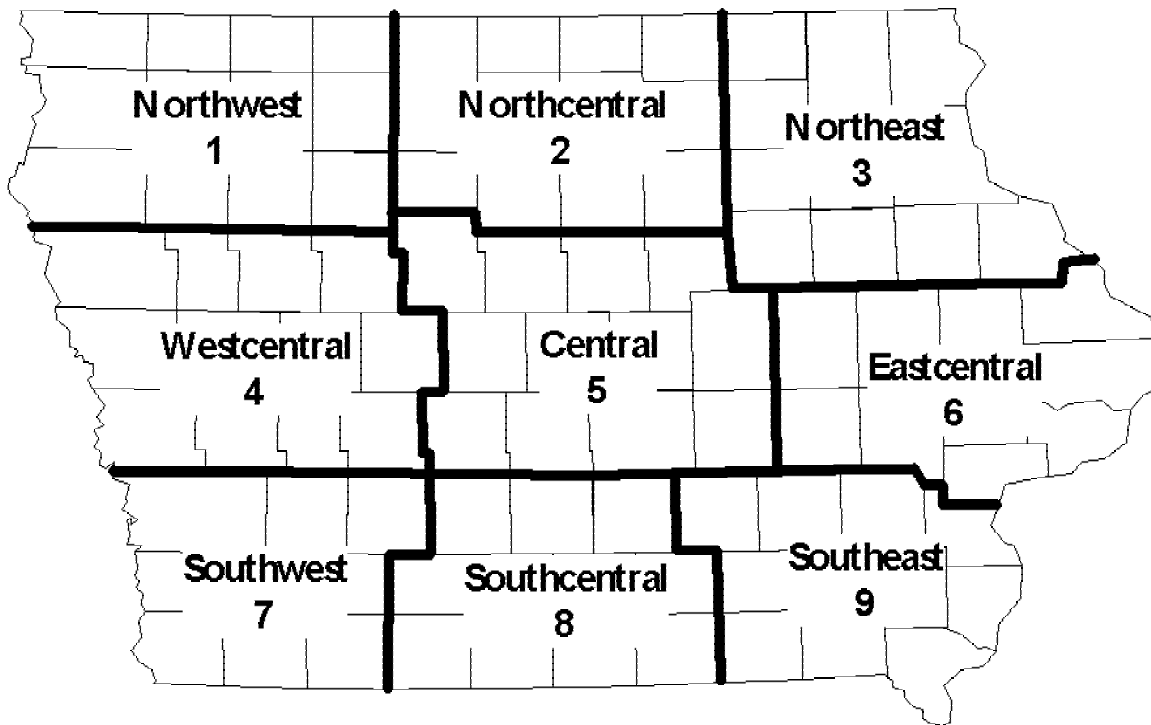


Ring-necked Pheasant

The ring-necked pheasant now found in Iowa has been classified as (*Phasianus colchicus torquatus*). This name suggests a cross between 2 of the true Asiatic pheasants. One the Rion Caucasian (Black-necked) pheasant (*Phasianus colchicus colchicus*) native to the area between the Black and Caspian Seas and the true Chinese ring-necked pheasant (*Phasianus torquatus torquatus*) found in eastern China and northwestern Indo-China. Pheasant were first introduced into Iowa in September of 1900 or 1901 when a severe windstorm wrecked the pens of a game breeder named William Benton of Cedar Falls releasing approximately 2,000 birds. Benton's birds spread west and north and constitute the foundation stock of Iowa's north-central counties. In 1904 an unsuccessful planting was made in Keokuk county. In 1907 a successful stocking was made in Kossuth county and in 1908 successful stockings were made in O'Brien county. Private individuals

made all of these early stockings. It is uncertain just when the state began stocking pheasants. Department records only date back to 1921, but it is certain by 1913 large state stockings were being made annually. Records show Butler county received 500 state birds in 1913 and 400 in 1915. The first state game farm was authorized in 1913, probably at Spirit Lake, because records show 200 state birds escaped from that game farm in 1915. Between 1915-18 all northeastern Iowa counties received plantings of 200-800 birds, with 1 large stocking of 2,500 at Pilot Knob State Park in Winnebago county. Stockings were usually made on timbered land leased by the state from private individuals. In 1915 the state established 2 more game farms at Clive and Lansing. Both game farms remained in operation until 1931. Between 1913-32 the state released an estimated 100,000 to 150,000 pheasants, both wild trapped and pen-raised birds. Virtually all of the original releases made in the northern half of the state were a success. Widespread abundance was first attained in Winnebago county in 1916, Dickinson in 1917, Floyd by 1919, Humboldt by 1920, Hardin and Hamilton counties by 1924, and Sac by 1927. In 1925, pheasants had become so abundant in Iowa's north-central counties that the state began to trap and gather eggs for southern Iowa. In 1925 farmers collected 60,000 wild eggs and trapped 7,000 birds from Butler and Winnebago counties. Most southern Iowa counties received large stockings in 1905-17, 1924-25, and 1928-30, but all were considered a failure. In 1905, it was generally assumed that southern Iowa had better

Figure 5.1 Survey regions for the August Roadside Survey.



pheasant habitat than northern Iowa. The existence of this belief is supported by the fact that up until 1913 it was customary to make stockings in timber. It is interesting to note Iowa's pheasant populations reached their highest abundance in the Des Moines Lobe landform. The early success, 1920-40's, of pheasants in north central Iowa was undoubtedly due to the abundance of grassy habitats (tame and native hay, oats, flax, and prairie pothole wetlands) interspersed with weedy crop fields. Iowa's first pheasant season was held October 20-22, 1925 in Kossuth, Humboldt, Winnebago, Hancock, Wright, Cerro Gordo, Franklin, Mitchell, Floyd, Butler, Grundy, Blackhawk and Bremer counties. The hunting season opened 1/2 hour before sunrise and ended at noon with a bag limit of 3 cocks. It appears the decision to open counties to hunting in these early years was based largely on pheasant crop depredation complaints as annual pheasant censuses, predecessor to the

August Roadside Survey, were not begun until 1935. Flush count records show 7 men flushed 850 pheasants in 5 hours in Hancock county in 1931. By 1945 most of northern Iowa was open to hunting and by 1965 all of Iowa, except a few southeastern counties, was open to pheasant hunting. The entire state was opened to hunting in 1976.

Historically (1930-50's), the NW, NC, and C regions had Iowa's highest pheasant densities (Fig. 5.1). However, intensified agriculture has led to a decline in pheasant populations since the 1960's (Fig. 5.2). Regionally, the greatest declines have occurred in the NC, C, and SW regions (Fig. 5.7). By the early 1970's southern Iowa had become the states premiere pheasant range. Populations have declined following severe winter weather in 1964-65, 1966-67, 1978-79, 1981-82 and, 2000-01 with recoveries occurring in years with milder winters (Fig.

5.2). While the number of broods sighted/30-mile route has also fluctuated with the severity of the winter (Fig. 5.3), the all-time lows recorded in 1983, 1984, 1993, and 2001 were the results of very cool, wet conditions during spring and early summer (Fig. 5.3). Observed brood sizes have declined slightly since 1962, with the 1992, 1998, and 2001 estimates (4.5-4.6 chicks/brood) the lowest ever recorded (Fig. 5.3). Modest recoveries of all survey parameters occurred between 1984 and 1996 with the enrollment and seeding down of 2.2 million acres of row crops in the 10-year federal Conservation Reserve program (CRP). Pheasant populations in historical ranges, northern and central regions, have rebound since the inception of CRP (Fig. 5.7). Populations in the southern regions initially responded to CRP the same way northern and central populations did, but recently have declined. Declines in SW and SC regions, in particular, are likely related to persistent wet weather during the nesting season since 1992.

The pheasant season opens the last Saturday in October and runs through January 10th, statewide with a bag/possession limit of 3/12 roosters. Shooting hours are 8 a.m. to 4:30 p.m. Iowa's first youth pheasant season was held during the 1997-98 hunting season. Youth hunting was allowed statewide for resident hunter's 15 years or younger whom a licensed adult accompanied. The youth pheasant season opens the weekend proceeding the regular season. Bag limit is 1 rooster/day with 2 in possession after the first day.

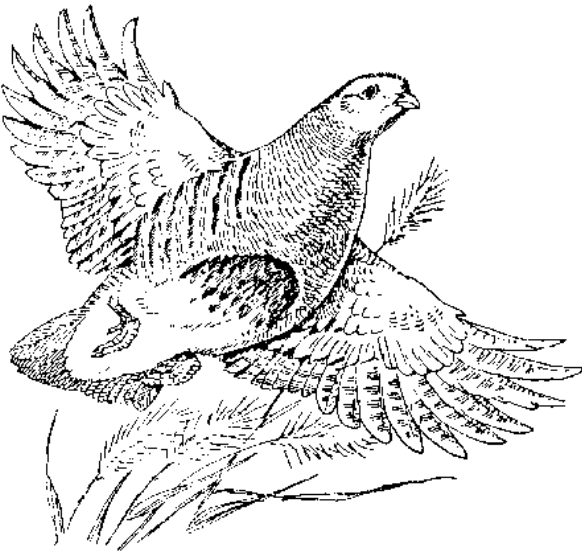
Bobwhite Quail

Our native bobwhite was probably never very abundant on Iowa's virgin prairie; most populations were likely restricted to the prairie-timber edges of Iowa. Early settlement changed Iowa's landscape forever. However, at least initially these changes

proved to be a boom to Iowa's quail population. Between 1860-90 settlers began carving up Iowa a 1/4 section at a time, but early settlers lacked timber and wire to make fences, so they planted Osage hedges instead.

Three to 6 miles of some of the finest quail cover ever grown in every 1/4 section, all within spitting distance of newly planted "weedy" grain fields. Quail populations exploded like never seen before or likely to be seen again. Quail could be found in every county, but these conditions could not last. By 1920 reports show quail populations beginning to decline as farming practices improved and hedgerows were replaced with barbed wire fence. The 1931-32 winter quail survey reported population densities of 1 quail per 20-40+ acres in the northern third of the state, 1 quail/6-20 ac. in the central third and 1 quail/1-6 ac. in the southern third of the state. Quail populations have declined steadily, both nationally and in Iowa since the 1930's. Large scale landscape changes and clean farming practices are considered the major factors in this decline. Since survey procedures were standardized in the early 1960's the mean number of quail/30 miles sighted on the August roadside survey has fluctuated over the years with significant declines occurring since 1977 (Fig. 5.6). This decline is related to losses in woody habitat and clean farming practices that have occurred since row-crop agriculture expanded in the mid 70's and early 80's (Fig. 5.8). The severe winters of 1995-96 and 2000-01 decimated populations (Fig. 5.8).

Quail have been hunted in Iowa since settlement. The first bag limit was set in 1878 at 25 birds/day, it was reduced to 15/day in 1915. The season was closed in 1917 and a limited season reopened in 1933. Currently the season opens the last Saturday in October and runs through January 31st, statewide, with a bag/possession limit of 8/16 birds. Shooting hours are 8 a.m. to 4:30 p.m.



Gray Partridge

Senator H.W. Grant of Waterloo made the first release of Hungarian or gray partridge in Iowa in Blackhawk county in 1902, but all 50 birds died. The first successful release of Huns in Iowa occurred in Palo Alto county in 1905. This release constitutes Iowa's first wild stock. Successful releases were made in Humboldt county in 1906, O'Brien in 1909, and in Kossuth in 1910. By 1914 most northern Iowa counties had received standardized releases of 20 pairs each. All releases, similar to pheasants, were made on leased timbered lands. Reports show many local farmers were surprised when the bird promptly moved to the nearest prairie upland. By 1932 it is estimated the state conservation commission had stocked 20,000+ partridge in Iowa. Most plantings were in northern Iowa, although a few were attempted in south central Iowa; all southern attempts failed. The birds gained their strongest hold in northwest Iowa in Osceola, O'Brien, Dickinson, and Clay counties and were generally present in most northern Iowa counties by 1940.

While numbers of other upland game birds have decreased over time, the number of gray partridge sighted on roadside counts had

been increasing until 1990 (Fig. 5.6a). Not only had the mean number partridge per 30-mile route increased statewide, but partridge populations had expanded their range from the NW and NC regions to all other regions of the state by 1986 (Fig. 5.9). While losses of woody cover and nesting cover have created less favorable conditions for pheasant and quail, partridge have been more adept at coping with row-crop expansion. The statewide increase in partridge numbers between 1983-89 might be partially attributed to mild winters, drought conditions, and improved nesting conditions on land enrolled in CRP. Five wet and cold nesting seasons during the last 6 years have caused partridge numbers to decline significantly (Fig. 5.6a). Huns were imported to this country from the arid, steppe region of southeastern Europe and northern Asia, and research has shown they do not reproduce well in this country during years with wet springs.

Iowa's first partridge season was held in 11 northwestern counties in 1937-39. Standardized hunting seasons were established in 1963. Partridge season opens the second Saturday in October and runs through January 31st, statewide, with a bag/possession limit of 8/16 birds. Shooting hours are 8 a.m. to 4:30 p.m.

Eastern Cottontail

Little is known about the presettlement distribution of cottontail rabbits in Iowa. Cultivation by man no doubt favored rabbits much the same way it favored quail at the turn of the century. Cottontails prefer habitats similar to quail, favoring shrubby-grassy edge habitats. Cottontails may have up to 6 litters a year in Iowa and reproduce best during warm moderately wet springs. Numbers of cottontail rabbits observed on the August roadside survey have fluctuated with changing land use and weather conditions (Fig. 5.6b). Hunter interest has declined in recent years

(Fig. 5.12). Cottontails have been hunted in Iowa since settlers first arrived. The cottontail season was standardized in 1978 and opens the first Saturday in September and runs through February 28th, statewide, with a bag/possession limit of 10/20 rabbits. Shooting hours are sunrise to sunset. The rule regarding the opening day of the cottontail season was changed in 1997 to open the 1997-98 season on Sept. 1st. This change in date allows inclusion of the Labor day weekend in all years.

White-tailed Jackrabbit

Before settlement white-tailed jackrabbits could be found everywhere in Iowa, except for a few southeastern counties. They appear in greatest abundance on the glaciated soils of the Des Moines Lobe and the Missouri Loess soils of northwestern Iowa (Fig. 5.6b). They are most at home on the wide-open expanses of prairie/wetland/pasture habitat types, although moderate cultivation favors the species. Dry growing seasons appear conducive to hare abundance as population's decline in wet years. Jackrabbit counts have declined greatly over time, closely paralleling the losses of pasture, hay, and small grain acreage's. Increases in the late 1980's can be attributed to increases in grass habitats from the CRP and dry springs.

Jacks have been hunted in Iowa since the time of settlement. Conservation officers reported hunters killing 180+ jacks on two circle hunts in Carroll and Buena Vista counties during the winter of 1960. The jackrabbit season opens the last Saturday in October and runs through December 1st, statewide, with a bag/possession limit of 2/4 rabbits. Shooting hours are sunrise to sunset. Harvests have tended to decline (Fig. 5.6b) with the decline in jackrabbit numbers and declining hunter interest.



2002

August Roadside and Small Game Harvest Survey Results

The Iowa Department of Natural Resources (IDNR) conducts 2 statewide surveys to monitor upland game populations in Iowa, the August Roadside survey (ARS) and the Small Game Harvest survey (SGHS).

AUGUST ROADSIDE SURVEY

The ARS is conducted each year by IDNR Enforcement and Wildlife Bureau personnel throughout the state of Iowa during the first half of August. The survey generates data from 210 30-mile routes on ring-necked pheasants, bobwhite quail, gray partridge, cottontail rabbits, and white-tailed jackrabbits. Counts are conducted on sunny, cool mornings with heavy dew. All comparisons are based on total routes run.

2001-02 Iowa Weather Summary

The winter of 2001-02 was one of the mildest in state history, a welcome relief from the brutal winter of 2000-01. Through March 1st this past winter was the 4th warmest and 15th driest in 130 years of state records. Statewide the cumulative snowfall from

December through March was 13.4 inches in 2002; this compares to +42 inches during the winter of 2000-01. The long-term (1961-90) average is 25.3 inches. Regionally the NW and SE regions recorded the most snow last winter with 17-19 inches each, while the NC and C regions recorded the least with less than 10 inches (Fig. 5.1). Survival of most upland species was much higher than normal because of the lack of snow and mild temperatures this past winter.

Conditions during the spring 2002 nesting period (April-May) were slightly wetter and cooler than normal. As a general rule, warm and drier than normal springs are conducive to good upland game reproduction, whereas cool, wetter than normal springs are detrimental to reproduction in Iowa. Statewide April-May temperatures averaged 53F or 2 degrees below normal, while precipitation averaged 7.8 inches or 0.7 inches above normal. April rainfall was near normal for all regions except the EC and SE regions, which reported rainfall about 1 inch above normal. The EC, SC and SE regions reported May rainfall 1-2 inches above normal, while other regions reported below normal to normal rainfall. In 2002, NW and NC Iowa had the best weather for nesting with less favorable conditions as you moved south and east in the state.

2002 Roadside Survey Conditions

Weather conditions during the 2002 survey were wetter, cooler, and more overcast than in 2001. Eighty-two percent of routes were started under ideal dew conditions in 2002 versus 77% in 2001. All regions reported heavy dew conditions on greater than 75% of the routes, except the SW region where only 56% of the routes were completed under heavy dew. Dew conditions were much improved in the WC and SE regions in 2002 compared to 2001. Warmer mornings with little dew tend to decrease the accuracy of the

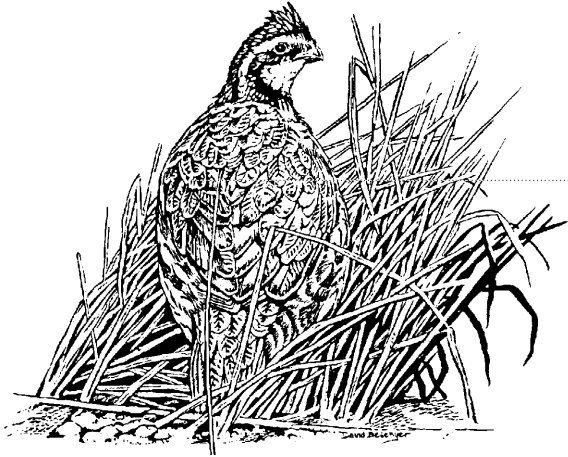
roadside index, but we are confident the numbers reported on this year's survey do represent the trends in upland game populations, with the exception of maybe the SW region.

RING-NECKED PHEASANT

Statewide. This year the statewide average is 31.8 birds/route and represents a 119% increase from the 2001 population index (Table 5.1, Fig. 5.2). In 2000 the statewide index was 34.3 birds/route. Following the severe winter of 2000-01 Iowa's pheasant population fell to a new all time low of 13.9 birds/route in 2001 (Fig. 5.2). This year's count shows the remarkable resiliency our pheasants have when Mother Nature cooperates. The population recovered from an all time low in one year. The average number of pheasants observed per route is 14% below the 10-year and 31% below the long-term averages. Populations increased 50% or more in all regions of the state this year, except the SW region (Table 5.1). Counts in the NW, NC, and C, regions are close or above their 10-year averages. Based on this year's statewide population index, Iowa pheasant hunters should harvest between 760,000 and 960,000 roosters this fall.

Most of this year's increase in pheasant numbers is directly attributable to the extremely mild winter of 2001-02. Statewide, the over winter survival of 2001 brood stock was excellent because of the lack of persistent snow cover last winter. In contrast to the winter 2000-01 when the white backdrop made the birds especially visible and snow filled most habitats, this winter's black landscape kept the birds inconspicuous with plenty of cover. Spring weather during April and May was also favorable for nesting over most of the state in 2002, particularly in northern and western Iowa (Fig. 5.7). Heavy rains in May and June in parts of NE, EC, SE, and SC regions damped the recruitment of

young. Several regions, NE, EC, SC, and SW still need another year of good weather for bird numbers to rebound to more acceptable levels (Fig. 5.7).



BOBWHITE QUAIL

Bobwhite quail numbers increased 28% statewide in 2002, but the increase was not significant (Table 5.1; Fig. 5.6a). This year's statewide index of 0.41 birds/route is 47% and 74% below the 10-year and long-term means respectively. In Iowa's primary quail range, SW, SC, and SE regions, populations increased in both the SC and SE regions (> 80%) and declined (-25%) in the SW region, although none of the changes were significant (Table 5.1). With the mild winter the decline in the SW seems somewhat suspect and the low quail numbers might be the result of poor survey conditions (lack of dew) rather than an actual decline in the population. Iowa's quail population remains in a long-term decline (Fig. 5.6a). Changing land-use, mainly intensified agriculture, is a leading factor in the decline. Unfortunately, this a trend that is likely to continue in the future, unless programs like CRP can be modified to provide for the habitat needs of quail. Only pockets of quail will likely be found across the southern 3 regions this fall (Fig. 5.8).

GRAY PARTRIDGE

Statewide Iowa's gray partridge numbers increase significantly (+55%), but in no region were the counts significantly higher (Table 5.1; Fig. 5.9). This year's statewide estimate of 2.6 birds/route is 21% below the 10-year mean and 41% below the long-mean. Regionally the NW, WC, and C reported the best partridge numbers in 2002 (Table 5.1; Fig. 5.9). Typically partridge recruitment is highest in Iowa when rainfall is below normal, so the increases observed in the northern and western regions were expected. The better partridge numbers in 2002 came from Osceola, Sioux, Cherokee, Ida, Sac, Pocahontas, Humboldt, Hamilton, Hardin, Franklin, and Grundy counties.

COTTONTAIL RABBIT

Similar to most other upland species the mild winter of 2001-02 was also good for cottontails as statewide populations increased significantly (+39%) in 2002 (Table 5.1; Fig. 5.6b). This year's population index of 5.4 rabbits/route is slightly below the 10-year mean of 5.6 and 13% below the long-term mean of 6.1 rabbits/route. Regionally rabbit numbers increased in all regions, although only the increases in the NW, NE, EC, SE were statistically significant (i.e., increased consistently across the region). Cottontail recruitment tends to be best with normal to slightly above normal moisture patterns, which likely explains the patterns seen in rabbit abundance this year. Field staff reported good rabbit numbers in Appanoose, Davis, Johnson, Keokuk, Lucas, Madison, Monroe, Ringgold, Van Buren, and Washington counties (Fig. 5.10).

WHITE-TAILED JACKRABBIT

The 2002 statewide jackrabbit index declined 50% compared to the 2001 index (Table 5.1). This years index is 57% and 84% below the 10-year and long-term averages,

respectively. Jackrabbit numbers have declined over time with the loss of their preferred habitats (i.e., small grains, pasture, hayfields) in the NW, NC, WC and C regions (Fig. 5.6b). Jackrabbit populations likely fared worse than most upland game species this past winter because they actively snow burrow and molt to a white pelage in winter, which gives them perfect camouflage on a snow white landscape, but make them highly visible during winters without snow like Iowa experienced in 2001-02. Most jackrabbits were observed in the NW, NC, and C survey regions (Table 5.1).



SMALL GAME HARVEST SURVEY

A random survey of Iowa small game hunters was conducted following the 2002-03 small game season to determine the size and distribution of Iowa's small game harvest. Survey questionnaires were mailed to 8,200 license holders. Survey participants were asked where they hunted, which species they hunted, how many days they hunted, and how many of each species they harvested.

Based on these returns 136,615 small game hunters took to Iowa's fields last fall, 1% fewer hunters than the year before (Fig. 5.11). By residency status, resident small game hunter numbers declined 6%, while nonresident small game hunters increased 22%. It is uncertain why resident small game hunter numbers declined this past year. Most of Iowa's small game populations showed nice increases in 2002 compared to the

horrendous 2001 hunting season said Bogenschutz, our pheasant counts increase over 100% last year. Bogenschutz noted that hunter numbers usually take several years to recover following a poor hunting season. Seems the word simply has to spread among resident hunters that hunting is good again, said Bogenschutz

Following 5 straight years of decline, nonresident pheasant hunters returned to Iowa last fall. According to the survey, nonresident pheasant hunter numbers increased 25% (29,757) over the 2001-02 estimate. Most of Iowa's nonresident hunters (56%) come from the surrounding states of Minnesota, Wisconsin, Missouri, Illinois, and Nebraska. The typical small game hunter reported hunting 8 days last fall. Over 50% of small game hunters reported hunting 5 days or less this past season. Most small game hunters hunted only on private land 52%, while 39% indicated they hunted a combination of public and private lands. Only 6% reported hunting exclusively on public lands, and 3% did not report where they hunted.

Ring-necked Pheasant

An estimated 127,599 pheasant hunters (54% of licensed hunters) took to Iowa's fields last fall and harvested 729,460 roosters, a 55% increase compared to 2001 harvest estimate of 470,116 (Fig. 5.6a & 5.12). Resident pheasant hunters declined 1% and non-resident hunter numbers increased 25% from last year. Resident hunters hunted an average of 8 days last fall and harvested 6 birds during the season. Nonresident pheasant hunters averaged 5 days afield and harvested 6 birds for the season. Hunter success (harvest/trip) was highest during the first 9 days of the season. Approximately 74% of the total pheasant harvest occurred in the first 31 days of the 2002 season. Ninety percent of pheasant hunters reported hunting 15 days or less and over 50% hunted 4 days or less. In

addition to the regular pheasant season, an estimated 7,424 pheasant hunters took 12,317 youth hunters (under the age of 16) hunting during Iowa's special 2-day youth pheasant season. These young hunters harvested an estimated 8,748 roosters.

For the fourth year in a row Iowa could not claim bragging rights as the top pheasant state in the nation, as South Dakota again took this honor with a harvest of 1.26 million birds in 2002-03. Over the last decade Iowa hunters have harvested an average of 1.12 million roosters during the pheasant season. Iowa's 2002 harvest estimate is 35% below the 10-year average and is the third lowest ever recorded in Iowa. Previous low's were 2001 harvest and 1984 when 724,000 birds were harvested.

Bobwhite Quail

Approximately 20,887 quail hunters (9% of licensed hunters) harvested 63,872 quail during the 2002-03 quail season (Fig. 5.6a & 5.12). This was a 98% increase from the 2001 harvest estimate of 32,226. Resident hunter numbers declined 21%, while nonresident hunter numbers increased 14% compared to 2001. Quail hunters averaged 7 days afield and harvested 3 birds for the season. Sixty-five percent of the quail harvest occurred in the first 31 days of the 2002 season. Over 90% percent of quail hunters hunted 15 days or less and over 50% hunted 5 days or less. Most of the quail harvest (45%) came from the southwest and south central regions of the state.

Gray Partridge

Some 4,417 partridge hunters (2% of licensed hunters) harvested 5,130 partridge in 2002-03 (Fig. 5.6b & 5.12). The harvest was 12% lower than the 2001-02 estimate of 5,814. This harvest estimate establishes a new all time low for partridge harvest in Iowa, breaking the low set last year. The low

harvest was attributed to a lack of hunters as population surveys showed partridge populations increased 55% last year compared to 2001. Partridge hunter numbers decline 23% this past year. It should be noted that partridge are usually harvested incidental to pheasant hunting in Iowa. Sixty percent of the partridge harvest came from the northwest and north central regions of Iowa.

Rabbits

Some 27,945 cottontail rabbit hunters (13% of licensed hunters) harvested 167,284 rabbits last fall, a 15% decline from 2001 harvest estimate (Fig. 5.6b & 5.12). Resident hunter numbers declined 25% compared to last year. This follows a 23% decline in hunter numbers reported in 2001. Nonresident hunter numbers increased 13%. The average rabbit hunter hunted 6 days and harvested 6 rabbits. Fifty percent of rabbit hunters hunted 3 days or less, while greater than 90% reported hunting 15 days or less. The 2002 estimate set another all time low for cottontail harvest in Iowa. The previous low's were set in 2001 and 1999. Population surveys showed statewide rabbit numbers increased 38% in 2002 compared to the previous year, so lack of rabbits was not the reason for a smaller harvest. Cottontail hunter numbers have declined steadily over the last several decades, corresponding with the shift from a rural to urban lifestyle in Iowa.

According to this year's survey 1,692 small game hunters also harvested 1,637 jackrabbits in 2002 (Fig. 5.6b). Less than 1% of Iowa's licensed hunters stated they hunted jackrabbits, and most of this hunting is likely incidental to other types of hunting. The average jackrabbit hunter harvested 1 jackrabbit for the season.

Table 5.1. Mean numbers of wildlife observed per 30-mile route on the August roadside survey in 2001 and 2002. Only routes run under heavy to moderate dew conditions, in both years, are used for statistical comparisons.

REGION	n	RINGNECKED PHEASANTS								BOBWHITE QUAIL		GRAY PARTRIDGE		RABBITS	
		TOTAL PHEASANT	COCKS	HENS W/O BROODS	HENS W/ BROODS	HENS	CHICKS	BROODS	CHICKS/ BROOD	TOTAL BIRDS	COVEYS	TOTAL BIRDS	COVEYS	EASTERN COTTONTAIL	WHITE-TAILED JACKRABBIT
Northwest															
2002	25	46.84	3.16	2.08	4.92	7.00	36.68	7.32	5.15			6.04	0.44	2.64	0.08
2001		23.48	3.65	2.04	2.74	4.78	15.04	3.43	4.40			3.35	0.22	1.43	0.13
% CHG		99.49	-13.42	1.96	79.56	46.44	143.88	113.41	17.05			80.30	100.00	84.62	-38.46
Northcentral															
2002	25	44.00	2.72	1.40	5.24	6.64	34.64	8.04	5.03			2.04	0.12	2.24	0.08
2001		16.20	0.96	0.52	1.88	2.40	12.84	2.72	4.73			0.92	0.08	1.72	0.16
% CHG		171.60	183.33	169.23	178.72	176.67	169.78	195.59	6.34			121.74	50.00	30.23	-50.00
Northeast															
2002	18	13.61	0.72	0.67	1.28	1.94	10.94	2.39	4.71			2.94	0.33	2.72	
2001		6.17	0.61	0.22	0.56	0.78	4.78	0.94	5.44			3.44	0.22	1.33	
% CHG		120.58	18.03	204.55	128.57	148.72	128.87	154.26	-13.42			-14.53	50.00	104.51	
West Central															
2002	20	31.95	1.60	0.80	3.10	3.90	26.45	5.30	4.82			4.00	0.35	3.65	0.00
2001		9.59	1.18	0.47	1.24	1.71	6.71	1.82	3.37			3.24	0.18	2.29	0.12
% CHG		233.16	35.59	70.21	150.00	128.07	294.19	191.21	43.03			23.46	94.44	59.39	-100.00
Central															
2002	31	50.06	3.03	1.32	5.00	6.32	40.71	7.87	5.07	0.03		5.16	0.71	4.68	0.06
2001		22.93	2.00	0.69	2.52	3.21	17.72	3.41	5.05	0.10		2.59	0.21	3.00	0.07
% CHG		118.32	51.50	91.30	98.41	96.88	129.74	130.79	0.40	-70.00		99.23	238.10	56.00	-14.29
Eastcentral															
2002	19	28.74	1.58	1.53	2.89	4.42	22.74	4.00	5.90	0.32	0.00	1.32	0.05	7.00	
2001		18.82	1.12	1.18	2.06	3.24	14.47	2.65	5.76	0.94	0.06	0.94	0.06	3.65	
% CHG		52.71	41.07	29.66	40.29	36.42	57.15	50.94	2.43	-65.96	-100.00	40.43	-16.67	91.78	
Southwest															
2002	15	15.20	1.13	0.53	1.40	1.93	12.13	3.40	3.38	1.13	0.13	0.00		4.00	
2001		12.93	1.29	0.79	1.29	2.07	9.57	2.36	4.11	1.50	0.21	0.14		5.50	
% CHG		17.56	-12.40	-32.91	8.53	-6.76	26.75	44.07	-17.76	-24.67	-38.10	-100.00		-27.27	
Southcentral															
2002	22	13.05	0.45	0.32	1.14	1.45	11.14	2.05	5.54	1.00	0.18			12.14	
2001		8.45	1.10	0.50	0.85	1.35	6.00	1.45	4.42	0.55	0.05			12.55	
% CHG		54.44	-59.09	-36.00	34.12	7.41	85.67	41.38	25.34	81.82	260.00			-3.27	
Southeast															
2002	22	22.59	1.09	0.59	2.27	2.86	18.64	3.59	5.55	0.95	0.05			9.27	
2001		4.58	1.00	0.53	0.42	0.95	2.63	0.68	3.06	0.37	0.00			4.53	
% CHG		393.23	9.00	11.32	440.48	201.05	608.75	427.94	81.37	156.76				104.64	
Statewide															
2002	197	31.80	1.86	1.08	3.27	4.36	25.58	5.22	5.10	0.41	0.04	2.64	0.25	5.35	0.03
2001		14.51	1.51	0.79	1.60	2.39	10.61	2.27	4.61	0.32	0.03	1.70	0.12	3.86	0.06
% CHG		119.16	23.18	36.71	104.38	82.43	141.09	129.96	10.63	28.13	33.33	55.29	108.33	38.60	-50.00

BOLD numbers indicate a mathematically significant change from the previous year ($P < 0.10$, Wilcoxon Signed Rank Test).

Table 5.3 Small game harvest estimates from the Iowa small-game survey (1963-present).

YEAR	PHEASANT	QUAIL	COTTON- TAIL	JACK- RABBIT	SQUIRREL	HUNS	RUFFED GROUSE	DUCKS	CANADA GEESE	OTHER GEESE	RACCOON	FOX	COYOTE
1963	1,935,000	327,977	2,066,472	75,015	1,440,576	8,000					347,168	121,124	
1964	1,737,400	291,030	2,260,090	97,785	1,111,290	7,000		434,590	27,575		268,560	91,550	
1965	1,117,500	513,760	1,602,060	133,000	1,236,400	11,500		394,680	55,660		254,360	88,330	
1966	1,449,400	1,051,630	2,180,525	91,690	1,370,250	12,000		594,605	62,075		301,600	113,100	
1967	1,212,200	736,520	1,548,035	55,660	1,196,810	11,300		525,060	58,725		301,725	68,475	
1968	1,393,900	777,685	1,761,370	62,405	1,014,940	21,600		244,075	49,410		349,600	177,155	
1969	1,642,899	1,144,700	1,722,280	98,930	1,164,030	20,900	2,110	558,950	116,020		300,630	142,100	
1970	1,788,500	1,178,685	1,725,535	71,705	1,115,410	28,300	4,085	554,283	79,427		281,890	60,000	6,000
1971	1,817,000	1,037,957	1,305,083	41,468	1,172,742	31,100	3,880	560,770	87,300		617,990	45,450	6,800
1972	1,396,900	657,300	1,148,100	31,200	1,048,000	16,800	8,500	597,500	9,100	50,100	374,600	66,100	19,400
1973	1,905,086	791,242	1,424,927	30,863	1,105,271	45,284		358,955	9,823	51,051	524,496	81,344	32,408
1974	1,672,476	727,324	1,271,577	40,027	1,119,048	39,976		374,500	79,800				
1975	1,230,095	543,971	996,227	19,064	1,046,559	26,436					557,500	32,500	23,800
1976	1,425,500	1,080,500	1,136,300	20,700	1,377,500	54,800	24,400	846,300	71,100		635,400	56,800	34,800
1977	1,357,862	849,183	1,322,263	19,975	1,283,043	48,991	17,022	721,824	50,228		539,000	53,426	37,547
1978	1,428,708	660,625	856,999	26,077	815,562	108,473	9,166	701,014	23,391	40,791	396,616	60,539	28,195
1979	1,200,709	312,410	461,285	13,713	696,363	55,414	7,717	848,849	27,646	60,239	425,528	25,544	36,231
1980	1,429,617	524,450	588,363	7,932	844,999	70,764	17,305	543,282	13,984	30,149	310,414	30,825	21,401
1981	1,447,969	563,569	1,134,781	22,860	949,681	69,698	23,940	543,541	26,532	44,376	320,934	50,021	33,660
1982	972,556	302,648	712,227	5,237	759,438	52,782	9,279	659,172	25,842	24,427	381,616	43,259	31,774
1983	1,047,027	270,690	720,012	8,845	669,490	91,035	5,894	591,483	21,350	16,230	257,105	59,048	36,022
1984	724,192	190,708	636,209	6,376	529,316	33,306	13,308	626,868	29,975	31,174	295,650	22,215	25,268
1985	852,716	189,236	717,631	2,108	673,665	62,931	8,336	362,951	23,167	22,399	*-----Discontinued-----*		
1986	855,894	339,000	472,585	6,082	506,769	60,018	12,701	412,571	26,960	19,086			
1987	1,412,082	397,633	690,091	8,830	532,001	109,061	5,254	300,159	20,597	23,204			
1988	1,139,599	289,592	424,561	3,907	510,065	104,094	13,039	132,514	32,400	16,023			
1989	1,441,990	426,302	435,791	3,025	583,183	118,282	13,335	183,990	28,967	12,373			
1990	1,407,002	321,493	608,805	4,463	466,140	147,922	9,338	173,006	25,592	11,375			
1991	1,138,463	231,818	437,144	3,171	407,172	45,541	5,764	206,938	42,099	12,288			
1992	925,123	179,825	311,607	2,113	328,644	37,328	3,794	242,395	54,160	16,350			
1993	1,226,010	201,461	334,667	3,212	439,477	24,577	1,606	190,800	49,716	19,075			
1994	1,245,580	178,589	288,982	262	395,232	22,331	2,189	190,122	33,349	5,013			
1995	1,443,010	220,999	335,862	6,280	377,714	6,677	2,630	374,490	79,256	14,670			
1996	1,367,060	81,039	331,047	2,666	302,908	36,358	3,011	313,134	83,218	12,786			
1997	1,340,050	181,025	340,661	5,063	265,874	38,045	3,402	371,746	123,029	27,356			
1998	1,237,980	100,594	255,149	10,008	319,081	25,613	0	535,949	79,101	14,564			
1999 ^a	899,174	110,128	237,409	8,777	242,224	20,200	1,373	*-----Discontinued-----*					
2000 ^b	1,001,867	140,828	350,739	1,626	217,116	19,258	489						
2001	470,116	32,226	196,483	3,840	248,833	5,814	903						
2002	729,460	63,872	167,284	1,637	152,825	5,130	265						
Statistics:													
10 Year Avg.	1,096,031	131,076	283,828	4,337	296,128	20,400	1,587						
Long-term Avg.	1,286,642	455,506	887,930	26,440	750,891	43,866	7,550	449,149	47,840	25,004	382,971	70,900	26,665
Percent Change from:													
2002	55.2	98.2	-14.9	-57.4	-38.6	-11.8	-70.7						
10 Year Avg.	-33.4	-51.3	-41.1	-62.3	-48.4	-74.9	-83.3						
Long-term Avg.	-43.3	-86.0	-81.2	-93.8	-79.6	-88.3	-96.5						

^a Small Game Harvest Survey changed from a single to a double mailing. Harvest estimates from 1999-present are more conservative than pre-1999 estimates.^b Survey methodology changed account for unrealistic harvest (e.g. reports of 1 bird harvested for 60 days effort).

Table 5.4 Sales of hunting-related licenses and stamps in Iowa (1942-present).
(Year summaries prior to the first year given are archived at <http://www.iowadnr.com/wildlife/>)

YEAR ^a	FUR- HARVEST over 16	RESIDENT HUNTING	RESIDENT COMBINATION	FUR, FISH, GAME	TOTAL RESIDENT LICENSE ^b	LIFETIME HUNTING +65	NR HUNTING over 18	NR HUNTING under 18	TOTAL NR LICENSE ^c
1972		159,145	118,172		277,317				28,559
1973		173,764	117,991		291,755				34,497
1974		173,049	145,881		318,930				42,224
1975		162,612	139,824		302,436				36,382
1976		164,434	142,055		306,489				41,849
1977		164,496	132,444		296,940				39,032
1978		161,295	134,401		295,696				32,848
1979	17,602	148,341	109,335		257,676				27,302
1980	19,366	161,596	105,059		266,655				30,793
1981	19,116	158,551	107,502		266,053				31,379
1982	17,505	139,044	106,925		245,969				24,002
1983	14,964	134,140	103,711		237,851				23,206
1984	14,537	120,341	101,178		221,519				21,927
1985	25,156	118,163	90,281		208,444				22,977
1986	23,646	121,640	83,653	63	205,356				27,254
1987	20,689	134,155	78,285	8,234	220,674				35,676
1988	13,406	130,547	77,342	10,699	218,588				35,023
1989	8,976	134,894	81,795	9,435	226,124				40,197
1990	6,059	131,601	80,241	7,794	219,636				41,500
1991	6,417	127,432	81,977	7,791	217,200				45,792
1992	6,851	142,059	54,028	7,421	203,508				39,211
1993	6,611	137,489	52,416	8,061	197,966				29,231
1994	7,477	148,770	54,185	8,334	211,289				45,610
1995	6,480	146,497	55,367	8,863	210,727				48,028
1996	8,132	137,724	62,834	9,105	209,663				53,058
1997	8,208	135,010	66,398	10,122	211,530				52,730
1998	7,664	133,000	65,129	10,661	208,790				50,511
1999**	"-----Discontinued-----"				206,210	2,885	42,379	2,086	44,465
2000					200,995	1,642	39,067	1,901	40,968
2001					194,051	1,515	26,748	1,090	27,838
2002					189,138	2,339	36,728	1,532	38,260

Statistics:

10 Year Avg.	204,036	2,095	36,231	1,652	43,070
Long-term Avg.	272,006	2,095	36,231	1,652	21,631

Percent Change from:

2002	-2.5	54.4	37.3	40.6	37.4
10 Year Avg.	-7.3	11.6	1.4	-7.3	-11.2
Long-term Avg.	-30.5	11.6	1.4	-7.3	76.9

^a Change to ELSI electronic licensing system in 1999. First four license types modified or eliminated under ELSI.

^b Total resident licenses is sum of resident hunt, resident combination, and fur/fish/game, until ELSI system implementation in 1999.

^c Total NR licenses combines NR over and under 18 sales after 1999 ELSI implementation for comparisons to previous years.

^{deh} Totals combine resident and non-resident sales.

^f Furharvester (over 16) sales combines discontinued furharvester (over 16) and fur/fish/game licenses, until ELSI system implementation in 1999.

^g Total furharvester licenses sales is the sum of the furharvester over and under 16 sales columns. Total does not include non-resident sales.

Table 5.4 Sales of hunting-related licenses and stamps in Iowa (1942-present).
(Year summaries prior to the first year given are archived at <http://www.iowadnr.com/wildlife/>)

YEAR ^a	HABITAT STAMP ^d	IOWA DUCK STAMP ^e	FUR- HARVEST over 16 ^f	FUR- HARVEST under 16	TOTAL FUR- HARVEST ^g	HUNT PRESERVE ^h
1972		70,446				
1973		67,323				
1974		70,797				
1975		70,814				
1976		66,120				
1977		69,023				
1978		67,041				
1979	279,621	52,865	17,602	4,813	22,415	768
1980	296,667	50,202	19,366	5,529	24,895	822
1981	297,297	45,751	19,116	4,990	24,106	742
1982	269,290	44,391	17,505	4,248	21,753	751
1983	261,340	42,981	14,964	3,699	18,663	766
1984	243,154	44,445	14,537	3,329	17,866	696
1985	233,779	37,681	25,156	3,519	28,675	729
1986	236,219	40,157	23,709	3,064	26,773	882
1987	259,350	43,357	28,923	3,338	32,261	1,112
1988	257,702	34,799	24,105	2,380	26,485	1,696
1989	271,342	32,920	18,411	1,530	19,941	1,499
1990	263,530	31,468	13,853	973	14,826	1,786
1991	266,845	32,537	14,208	719	14,927	1,454
1992	247,673	34,304	14,272	793	15,065	1,810
1993	232,298	31,741	14,672	829	15,501	2,137
1994	260,815	33,232	15,811	952	16,763	1,870
1995	263,531	34,903	15,343	903	16,246	2,467
1996	265,653	43,060	17,237	1,021	18,258	2,317
1997	269,443	38,275	18,330	1,066	19,396	2,516
1998	266,519	40,349	18,325	1,078	19,403	3,107
1999**	253,943	42,588	15,804	1,004	16,808	2,772
2000	245,351	40,913	12,793	1,936	14,729	2,898
2001	237,407	40,378	14,665	658	15,323	2,963
2002	229,829	37,574	14,235	644	14,879	3,282

Statistics:

10 Year Av	252,479	38,301	15,722	1,009	16,731	2,633
Long-term	258,692	46,208	17,623	2,209	19,832	1,743

Percent Change from:

2002	-3.2	-6.9	-2.9	-2.1	-2.9	10.8
10 Year Av	-9.0	-1.9	-9.5	-36.2	-11.1	24.7
Long-term	-11.2	-18.7	-19.2	-70.8	-25.0	88.3

^a Change to ELSI electronic licensing system in 1999. First four license types modified or eliminated under ELSI.

^b Total resident licenses is sum of resident hunt, resident combination, and fur/fish/game, until ELSI system implementation in 1999.

^c Total NR licenses combines NR over and under 18 sales after 1999 ELSI implementation for comparisons to previous years.

^d Totals combine resident and non-resident sales.

^f Furharvester (over 16) sales combines discontinued furharvester (over 16) and fur/fish/game licenses, until ELSI system implementation in 1999.

^g Total furharvester licenses sales is the sum of the furharvester over and under 16 sales columns. Total does not include non-resident sales.

Table 5.5 Estimated hunter numbers from the Iowa small-game survey (1963-present). Prior to 1978 Canada geese = all geese.

YEAR	PHEASANT	QUAIL	COTTON- TAIL	JACK- RABBIT	SQUIRREL	HUNS	RUFFED GROUSE	DUCKS	CANADA GEESE	OTHER GEESE	RACCOON	FOX	COYOTE
1963	277,400	47,028	169,994	30,494	150,932						26,745	54,135	
1964	271,285	46,535	179,585	31,815	136,415			55,270	9,225		27,975	58,685	
1965	225,735	46,450	138,379	26,080	123,640			50,225	26,250		17,420	40,150	
1966	240,400	63,785	154,647	20,355	130,500			63,265	31,340		23,200	43,500	
1967	244,300	62,485	150,050	20,615	138,520			64,900	32,450		21,400	48,910	
1968	247,100	70,367	147,380	20,131	120,790			54,065	33,075		23,000	63,270	
1969	259,100	81,100	159,000	24,810	133,600		1,540	75,035	40,025		18,220	54,650	
1970	283,400	87,665	167,190	26,460	136,150		2,660	68,880	34,440		30,640	28,620	4,370
1971	301,150	80,250	134,470	16,326	118,059		1,663	73,196	53,826		36,140	26,740	4,700
1972	230,000	63,900	137,000	12,800	105,000	6,400	3,000	61,000	20,000		25,500	19,000	6,400
1973	307,974	106,150	201,560	23,209	159,473	22,374		63,006			44,655	59,849	34,547
1974	307,200	101,101	192,100		159,000								
1975	280,019	102,668	175,850										
1976	289,592	125,575	173,125	11,600	143,474	22,054	8,198	86,763	57,598		52,097	61,874	42,721
1977	279,689	103,776	170,074	11,302	141,596	17,691	5,668	87,493	56,405		57,985	57,264	40,638
1978	270,413	101,916	142,809	14,268	120,503	34,329	8,306	82,758	36,104	33,726	46,487	56,769	40,726
1979	241,972	73,461	114,642	10,029	111,434	23,465	4,931	74,989	28,779	30,735	45,432	44,884	34,240
1980	252,440	86,816	119,901	8,526	111,425	27,554	9,281	65,206	25,348	25,441	39,900	39,666	34,125
1981	254,803	97,430	150,881	11,106	117,942	28,731	7,059	55,394	24,277	22,266	36,108	43,985	35,443
1982	214,263	68,479	118,994	4,862	105,262	21,532	8,317	56,335	27,211	22,149	33,321	39,754	32,852
1983	203,014	63,060	118,535	7,331	98,553	25,366	5,701	53,446	20,728	16,761	27,631	39,401	28,652
1984	176,312	58,630	102,993	5,543	86,380	21,179	7,573	53,187	26,681	22,702	25,977	35,144	33,322
1985	175,225	54,427	107,500	6,568	88,849	25,956	5,949	39,832	21,629	15,234	"-----Discontinued-----"		
1986	184,759	63,985	92,727	5,193	84,082	30,822	6,874	44,184	24,646	16,331			
1987	212,118	83,754	103,199	7,298	77,819	40,878	6,053	36,805	18,391	14,201			
1988	204,659	74,584	84,529	4,376	74,783	44,154	8,353	25,657	16,309	9,348			
1989	211,586	79,971	89,054	5,634	80,937	48,785	9,611	24,032	16,275	11,253			
1990	210,845	72,886	87,437	4,679	70,539	49,220	7,095	23,568	14,792	6,900			
1991	202,319	62,684	83,200	4,001	63,601	25,165	4,884	26,261	17,073	6,828			
1992	176,430	56,287	66,967	5,802	60,443	22,949	4,378	34,270	23,538	10,485			
1993	166,260	49,345	65,704	1,547	62,175	14,920	2,197	28,292	19,839	10,164			
1994	189,664	50,258	68,840	1,239	57,381	18,294	2,521	29,843	25,544	10,107			
1995	200,302	50,839	68,499	4,361	57,495	15,954	3,940	41,620	31,795	10,034			
1996	205,592	44,974	75,870	2,623	56,382	21,914	2,525	35,670	29,743	7,076			
1997	205,203	35,473	51,785	2,872	43,632	12,330	2,031	46,831	35,781	10,360			
1998	184,585	32,378	54,588	1,604	53,859	13,502	152	41,165	30,258	9,992			
1999*	181,673	41,117	50,254	2,456	46,994	11,390	1,481	"-----Discontinued-----"					
2000	167,521	39,957	46,311	1,572	35,395	6,043	960						
2001	122,906	24,591	36,125	2,933	36,760	5,757	3,227						
2002	127,599	20,887	27,945	1,692	25,482	4,417	1,060						
Statistics:													
10 Year Avg.	175,131	38,982	54,592	2,290	47,556	12,452	2,009						
Long-term Avg.	224,670	66,926	114,492	10,635	95,519	22,866	4,748	52,195	28,418	15,338	32,992	45,813	28,672
Percent Change from:													
2002	3.8	-15.1	-22.6	-42.3	-30.7	-23.3	-67.2						
10 Year Avg.	-27.1	-46.4	-48.8	-26.1	-46.4	-64.5	-47.2						
Long-term Avg.	-43.2	-68.8	-75.6	-84.1	-73.3	-80.7	-77.7						

* Small Game Harvest Survey changed from a single to a double mailing. Hunter estimates from 1999-present are more conservative than pre-1999 estimates.

Table 5.6 Iowa's ring-necked pheasant hunting seasons.

YEAR	DATES	SEASON LENGTH	SHOOTING HOURS	LIMIT - BAG/POSS		# COUNTIES OPEN
	REGULAR / YOUTH			REGULAR	YOUTH	
1946	28 OCT-17 NOV	21	1000-1600	3/6		59
1947	11 NOV-20 NOV	10	1200-1600	2/2		64
1948	11 NOV-30 NOV	20	1200-1600	2/4		68
	11 NOV- 5 DEC	25	1200-1630	2/4		68
1949	11 NOV-17 NOV	7	1200-1630	2/4		11
1950	11 NOV- 5 DEC	25	1200-1630	3/3		70
	11 NOV-20 NOV	10	1200-1630	3/3		13
1951	11 NOV- 5 DEC	25	1200-1630	3/3		65
	11 NOV-22 NOV	12	1200-1630	3/3		27
1952	18 NOV-12 DEC	25	1200-1630	3/3		65
	18 NOV-29 NOV	12	1200-1630	3/3		27
1953	11 NOV- 5 DEC	25	1200-1630	3/3		69
	11 NOV-22 NOV	12	1200-1630	3/3		23
1954	11 NOV- 5 DEC	25	1200-1630	3/3		70
	11 NOV-22 NOV	12	1200-1630	3/3		22
1955	12 NOV- 5 DEC	24	1200-1630	3/3		70
	12 NOV-24 NOV	13	1200-1630	3/3		22
1956	10 NOV- 3 DEC	24	1200-1630	3/3		70
	10 NOV-22 NOV	13	1200-1630	3/3		22
1957	9 NOV- 2 DEC	24	1200-1630	3/3		70
	9 NOV-21 NOV	13	1200-1630	3/3		22
1958	8 NOV- 1 DEC	24	1000-1630	3/6		70
	8 NOV-23 NOV	16	1000-1630	3/6		22
1959	14 NOV- 7 DEC	24	0900-1630	3/6		70
	14 NOV-29 NOV	16	0900-1630	3/6		22
1960	5 NOV-28 NOV	24	0900-1630	3/6		92
1961	11 NOV-15 DEC	35	0900-1630	3/6		92
1962	10 NOV-14 DEC	35	0900-1630	3/6		92
1963-64	9 NOV- 1 JAN	54	0830-1700	3/9		92
1964-65	7 NOV- 3 JAN	58	0830-1700	3/9		92
1965-66	13 NOV- 2 JAN	51	0830-1600	2/6		92
1966-67	12 NOV- 2 JAN	52	0800-1630	3/6		92
1967-68	11 NOV- 1 JAN	52	0800-1630	3/6		94
1968-69	9 NOV-31 DEC	53	0800-1630	3/6		94
1969-70	8 NOV-31 DEC	54	0800-1630	3/6		94
1970-71	14 NOV- 3 JAN	51	0800-1630	3/6		94
1971-72	13 NOV- 2 JAN	51	0800-1630	3/6		96
1972-73	11 NOV- 1 JAN	52	0800-1630	3/12		96
1973-74	10 NOV- 6 JAN	58	0800-1630	3/12		96
1974-75	9 NOV- 5 JAN	58	SUNRISE-SUNSET	3/12		97
1975-76	8 NOV- 4 JAN	58	0800-1630	3/6		97
1976-77	6 NOV- 2 JAN	58	0800-1630	3/6		STATEWIDE
1977-78	5 NOV- 1 JAN	58	0800-1630	3/6		STATEWIDE
1978-79	4 NOV- 1 JAN	60	0800-1630	3/6		STATEWIDE

Table 5.6 Iowa's ring-necked pheasant hunting seasons.

YEAR	DATES REGULAR / YOUTH	SEASON LENGTH	SHOOTING HOURS	LIMIT - BAG/POSS		# COUNTIES OPEN
				REGULAR	YOUTH	
1979-80	3 NOV- 6 JAN	65	0800-1630	3/6		STATEWIDE
1980-81	1 NOV- 4 JAN	65	0800-1630	3/6		STATEWIDE
1981-82	7 NOV- 3 JAN	58	0800-1630	3/6		STATEWIDE
1982-83	6 NOV- 2 JAN	58	0800-1630	3/6		STATEWIDE
1983-84	5 NOV- 1 JAN	58	0800-1630	3/6		STATEWIDE
1984-85	3 NOV- 1 JAN	60	0800-1630	3/6		STATEWIDE
1985-86	2 NOV- 5 JAN	65	0800-1630	3/9		STATEWIDE
1986-87	1 NOV- 4 JAN	65	0800-1630	3/9		STATEWIDE
1987-88	31 OCT- 3 JAN	65	0800-1630	3/12		STATEWIDE
1988-89	29 OCT- 8 JAN	72	0800-1630	3/12		STATEWIDE
1989-90	28 OCT-10 JAN	75	0800-1630	3/12		STATEWIDE
1990-91	27 OCT-10 JAN	76	0800-1630	3/12		STATEWIDE
1991-92	26 OCT-10 JAN	77	0800-1630	3/12		STATEWIDE
1992-93	31 OCT-10 JAN	72	0800-1630	3/12		STATEWIDE
1993-94	30 OCT-10 JAN	72	0800-1630	3/12		STATEWIDE
1994-95	29 OCT-10 JAN	74	0800-1630	3/12		STATEWIDE
1995-96	28 OCT-10 JAN	75	0800-1630	3/12		STATEWIDE
1996-97	26 OCT-10 JAN	77	0800-1630	3/12		STATEWIDE
1997-98 ¹	26 OCT-10 JAN / 18-19 OCT	78/2	0800-1630	3/12	1/2	STATEWIDE
1998-99	31 OCT-10 JAN / 23-24 OCT	72/2	0800-1630	3/12	1/2	STATEWIDE
1999-00	30 OCT-10 JAN / 22-23 OCT	73/2	0800-1630	3/12	1/2	STATEWIDE
2000-01	28 OCT-10 JAN / 21-22 OCT	75/2	0800-1630	3/12	1/2	STATEWIDE
2001-02	27 OCT-10 JAN / 20-21 OCT	76/2	0800-1630	3/12	1/2	STATEWIDE
2002-03	26 OCT-10 JAN / 19-20 OCT	77/2	0800-1630	3/12	1/2	STATEWIDE
2003-04	25 OCT-10 JAN / 18-19 OCT	78/2	0800-1630	3/12	1/2	STATEWIDE

¹ Iowa's first youth pheasant season, open to resident hunters 15 years or younger.

Table 5.7 Iowa's Bobwhite quail hunting seasons.

YEAR	DATES	SEASON LENGTH	SHOOTING HOURS	LIMIT BAG/POSS	AREA OPEN
1963-64	2 NOV- 1 JAN	61	0830-1700	6/12	STATEWIDE
1964-65	31 OCT- 3 JAN	65	0830-1700	8/16	STATEWIDE
1965-66	6 NOV-31 JAN	86	0830-1600	8/16	STATEWIDE
1966-67	22 OCT-31 JAN	102	0800-1630	8/16	STATEWIDE
1967-68	21 OCT-28 JAN	103	0800-1630	8/16	STATEWIDE
1968-69	26 OCT-31 JAN	98	0800-1630	8/16	STATEWIDE
1969-70	25 OCT-31 JAN	99	0800-1630	8/16	STATEWIDE
1970-71	24 OCT-31 JAN	100	0800-1630	8/16	STATEWIDE
1971-72	23 OCT-31 JAN	101	0800-1630	8/16	STATEWIDE
1972-73	28 OCT-31 JAN	96	0800-1630	8/16	STATEWIDE
1973-74	27 OCT-31 JAN	97	0800-1630	8/16	STATEWIDE
1974-75	26 OCT-31 JAN	98	SUNRISE-SUNSET	8/16	STATEWIDE
1975-76	25 OCT-31 JAN	99	0800-1630	8/16	STATEWIDE
1976-77	6 NOV-31 JAN	86	0800-1630	8/16	STATEWIDE
1977-78	5 NOV-31 JAN	87	0800-1630	8/16	STATEWIDE
1978-79	4 NOV-31 JAN	88	0800-1630	8/16	STATEWIDE
1979-80	3 NOV- 6 JAN	64	0800-1630	6/12	STATEWIDE
1980-81	1 NOV-31 JAN	92	0800-1630	8/16	STATEWIDE
1981-82	7 NOV-31 JAN	86	0800-1630	8/16	STATEWIDE
1982-83	6 NOV-31 JAN	87	0800-1630	8/16	STATEWIDE
1983-84	5 NOV-31 JAN	88	0800-1630	8/16	STATEWIDE
1984-85	3 NOV-31 JAN	90	0800-1630	8/16	STATEWIDE
1985-86	2 NOV-31 JAN	91	0800-1630	8/16	STATEWIDE
1986-87	1 NOV-31 JAN	92	0800-1630	8/16	STATEWIDE
1987-88	31 OCT-31 JAN	93	0800-1630	8/16	STATEWIDE
1988-89	29 OCT-31 JAN	95	0800-1630	8/16	STATEWIDE
1989-90	28 OCT-31 JAN	96	0800-1630	8/16	STATEWIDE
1990-91	27 OCT-31 JAN	97	0800-1630	8/16	STATEWIDE
1991-92	26 OCT-31 JAN	98	0800-1630	8/16	STATEWIDE
1992-93	31 OCT-31 JAN	93	0800-1630	8/16	STATEWIDE
1993-94	30 OCT-31 JAN	93	0800-1630	8/16	STATEWIDE
1994-95	29 OCT-31 JAN	95	0800-1630	8/16	STATEWIDE
1995-96	28 OCT-31 JAN	96	0800-1630	8/16	STATEWIDE
1996-97	26 OCT-31 JAN	98	0800-1630	8/16	STATEWIDE
1997-98	25 OCT-31 JAN	99	0800-1630	8/16	STATEWIDE
1998-99	31 OCT-31 JAN	93	0800-1630	8/16	STATEWIDE
1999-00	30 OCT-31 JAN	94	0800-1630	8/16	STATEWIDE
2000-01	28 OCT-31 JAN	96	0800-1630	8/16	STATEWIDE
2001-02	27 OCT-31 JAN	97	0800-1630	8/16	STATEWIDE
2002-03	26 OCT-31 JAN	98	0800-1630	8/16	STATEWIDE
2003-04	25 OCT-31 JAN	99	0800-1630	8/16	STATEWIDE

Table 5.8 Iowa's Hungarian partridge hunting seasons.

YEAR	DATES	SEASON LENGTH	SHOOTING HOURS	LIMIT BAG/POSS	AREA OPEN
1963-64	9 NOV- 1 JAN	54	0830-1700	2/4	16 NW COUNTIES
1964-65	7 NOV- 3 JAN	58	0830-1700	2/4	W US 65, N US 20
1965-66	13 NOV- 2 JAN	51	0830-1600	2/4	W US 65, N US 20
1966-67	12 NOV- 2 JAN	52	0800-1630	2/4	W US 65, N US 20
1967-68	11 NOV- 1 JAN	52	0800-1630	2/4	W US 65, N US 20
1968-69	9 NOV-31 DEC	53	0800-1630	4-Feb	?
1969-70	8 NOV-31 DEC	54	0800-1630	2/4	?
1970-71	14 NOV- 3 JAN	51	0800-1630	2/4	W. US 65; N. US 30, I29, STATE 141
1971-72	13 NOV- 2 JAN	51	0800-1630	2/4	W. US 65; N. US 30, I29, STATE 141
1972-73	11 NOV- 1 JAN	52	0800-1630	4/8	W. US 65; N. US 30, I29, STATE 141
1973-74	10 NOV- 6 JAN	58	0800-1630	4/8	N. US 30
1974-75	9 NOV- 5 JAN	58	SUNRISE-SUNSET	4/8	N. US 30
1975-76	8 NOV- 4 JAN	58	0800-1630	4/8	N. US 30
1976-77	6 NOV- 2 JAN	58	0800-1630	4/8	N. US 30
1977-78	5 NOV- 1 JAN	58	0800-1630	6/12	N. US 30
1978-79	4 NOV- 1 JAN	60	0800-1630	6/12	N. US 30
1979-80	3 NOV- 6 JAN	65	0800-1630	6/12	N. US 30
1980-81	1 NOV-31 JAN	92	0800-1630	6/12	N. I-80
1981-82	7 NOV-31 JAN	86	0800-1630	6/12	N. I-80
1982-83	6 NOV-31 JAN	87	0800-1630	6/12	N. I-80
1983-84	5 NOV-31 JAN	88	0800-1630	6/12	N. I-80
1984-85	3 NOV-31 JAN	90	0800-1630	6/12	N. I-80
1985-86	2 NOV-31 JAN	91	0800-1630	6/12	N. I-80
1986-87	1 NOV-31 JAN	92	0800-1630	6/12	STATEWIDE
1987-88	31 OCT-31 JAN	93	0800-1630	8/16	STATEWIDE
1988-89	29 OCT-31 JAN	94	0800-1630	8/16	STATEWIDE
1989-90	7 OCT-31 JAN	117	0800-1630	8/16	STATEWIDE
1990-91	6 OCT-31 JAN	118	0800-1630	8/16	STATEWIDE
1991-92	5 OCT-31 JAN	119	0800-1630	8/16	STATEWIDE
1992-93	10 OCT-31 JAN	114	0800-1630	8/16	STATEWIDE
1993-94	9 OCT-31 JAN	115	0800-1630	8/16	STATEWIDE
1994-95	8 OCT-31 JAN	116	0800-1630	8/16	STATEWIDE
1995-96	14 OCT-31 JAN	109	0800-1630	8/16	STATEWIDE
1996-97	12 OCT-31 JAN	112	0800-1630	8/16	STATEWIDE
1997-98	11 OCT-31 JAN	113	0800-1630	8/16	STATEWIDE
1998-99	10 OCT-31 JAN	114	0800-1630	8/16	STATEWIDE
1999-00	9 OCT-31 JAN	115	0800-1630	8/16	STATEWIDE
2000-01	14 OCT-31 JAN	110	0800-1630	8/16	STATEWIDE
2001-02	13 OCT-31 JAN	111	0800-1630	8/16	STATEWIDE
2002-03	12 OCT-31 JAN	112	0800-1630	8/16	STATEWIDE
2003-04	11 OCT-31 JAN	113	0800-1630	8/16	STATEWIDE

Table 5.9 Iowa's cottontail and jackrabbit seasons.

YEAR	DATES	SEASON LENGTH	SHOOTING HOURS	LIMIT - BAG/POSS		AREA OPEN
	COTTONTAILS / JACKRABBITS			COTTONTAILS	JACKRABBITS	
1963-64	14 SEP-23 FEB	163	0600-1800	AGGREGATE - 10/NONE		STATEWIDE
1964-65	12 SEP-21 FEB	163	0600-1800	AGGREGATE - 10/NONE		STATEWIDE
1965-66	12 SEP-21 FEB	163	0600-1800	AGGREGATE - 10/NONE		STATEWIDE
1966-67	10 SEP-19 FEB	163	0600-1800	AGGREGATE - 10/NONE		STATEWIDE
1967-68	15 SEP-17 FEB	163	0600-1800	AGGREGATE - 10/NONE		STATEWIDE
1968-69	14 SEP-16 FEB	163	0600-1800	AGGREGATE - 10/NONE		STATEWIDE
1969-70	13 SEP-15 FEB	163	0600-1800	AGGREGATE - 10/NONE		STATEWIDE
1970-71	12 SEP-28 FEB	170	0600-1800	AGGREGATE - 10/NONE		STATEWIDE
1971-72	11 SEP-29 FEB	171	0600-1800	AGGREGATE - 10/NONE		STATEWIDE
1972-73	9 SEP-28 FEB	173	0600-1800	AGGREGATE - 10/NONE		STATEWIDE
1973-74	8 SEP-28 FEB	174	0600-1800	AGGREGATE - 10/NONE		STATEWIDE
1974-75	7 SEP-28 FEB	175	SUNRISE-SUNSET	AGGREGATE - 10/NONE		STATEWIDE
1975-76	6 SEP-28 FEB	176	SUNRISE-SUNSET	AGGREGATE - 10/NONE		STATEWIDE
1976-77	11 SEP-28 FEB	171	SUNRISE-SUNSET	AGGREGATE - 10/NONE		STATEWIDE
1977-78	3 SEP-28 FEB	179	SUNRISE-SUNSET	AGGREGATE - 10/NONE		STATEWIDE
1978-79	2 SEP-28 FEB/4 NOV-7 JAN	180/65	SUNRISE-SUNSET	10/NONE	3/6	STATEWIDE
1979-80	1 SEP-29 FEB/3 NOV-6 JAN	182/65	SUNRISE-SUNSET	10/20	3/6	STATEWIDE
1980-81	6 SEP-28 FEB/1 NOV-4 JAN	176/65	SUNRISE-SUNSET	10/20	3/6	STATEWIDE
1981-82	5 SEP-28 FEB/7 NOV-3 JAN	177/58	SUNRISE-SUNSET	10/20	3/6	STATEWIDE
1982-83	4 SEP-28 FEB/6 NOV-2 JAN	178/58	SUNRISE-SUNSET	10/20	3/6	STATEWIDE
1983-84	3 SEP-29 FEB/5 NOV-18 DEC	180/44	SUNRISE-SUNSET	10/20	3/6	STATEWIDE
1984-85	1 SEP-28 FEB/3 NOV-16 DEC	181/44	SUNRISE-SUNSET	10/20	3/6	STATEWIDE
1985-86	31 AUG-28 FEB/2 NOV-15 DEC	182/44	SUNRISE-SUNSET	10/20	3/6	STATEWIDE
1986-87	30 AUG-28 FEB/1 NOV-14 DEC	183/44	SUNRISE-SUNSET	10/20	3/6	STATEWIDE
1987-88	5 SEP-29 FEB/31 OCT-13 DEC	178/44	SUNRISE-SUNSET	10/20	3/6	STATEWIDE
1988-89	3 SEP-28 FEB/28 OCT-10 DEC	179/44	SUNRISE-SUNSET	10/20	3/6	STATEWIDE
1989-90	2 SEP-28 FEB/29 OCT-11 DEC	180/44	SUNRISE-SUNSET	10/20	3/6	STATEWIDE
1990-91	1 SEP-28 FEB/27 OCT-9 DEC	181/44	SUNRISE-SUNSET	10/20	3/6	STATEWIDE
1991-92	31 AUG-29 FEB/26 OCT-8 DEC	183/44	SUNRISE-SUNSET	10/20	3/6	STATEWIDE
1992-93	5 SEP-28 FEB/31 OCT-6 DEC	177/37	SUNRISE-SUNSET	10/20	3/6	STATEWIDE
1993-94	4 SEP-28 FEB/30 OCT-5 DEC	176/37	SUNRISE-SUNSET	10/20	2/4	STATEWIDE
1994-95	3 SEP-28 FEB/29 OCT-4 DEC	177/37	SUNRISE-SUNSET	10/20	2/4	STATEWIDE
1995-96	2 SEP-28 FEB/28 OCT-1 DEC	178/35	SUNRISE-SUNSET	10/20	2/4	STATEWIDE
1996-97	7 SEP-28 FEB/26 OCT-1 DEC	174/37	SUNRISE-SUNSET	10/20	2/4	STATEWIDE
1997-98	1 SEP-28 FEB/25 OCT-1 DEC	181/38	SUNRISE-SUNSET	10/20	2/4	STATEWIDE
1998-99	1 SEP-28 FEB/30 OCT-1 DEC	181/33	SUNRISE-SUNSET	10/20	2/4	STATEWIDE
1999-00	1 SEP-28 FEB/30 OCT-1 DEC	181/33	SUNRISE-SUNSET	10/20	2/4	STATEWIDE
2000-01	1 SEP-28 FEB/28 OCT-1 DEC	181/35	SUNRISE-SUNSET	10/20	2/4	STATEWIDE
2001-02	1 SEP-28 FEB/27 OCT-1 DEC	181/36	SUNRISE-SUNSET	10/20	2/4	STATEWIDE
2002-03	1 SEP-28 FEB/26 OCT-1 DEC	181/37	SUNRISE-SUNSET	10/20	2/4	STATEWIDE
2003-04	1 SEP-28 FEB/25 OCT-1 DEC	181/38	SUNRISE-SUNSET	10/20	2/4	STATEWIDE

1963-1977 SEASONS AND LIMITS ARE AN AGGREGATE OF COTTONTAILS AND JACKRABBITS.

Figure 5.2 Statewide trends in pheasant harvest and August roadside survey counts

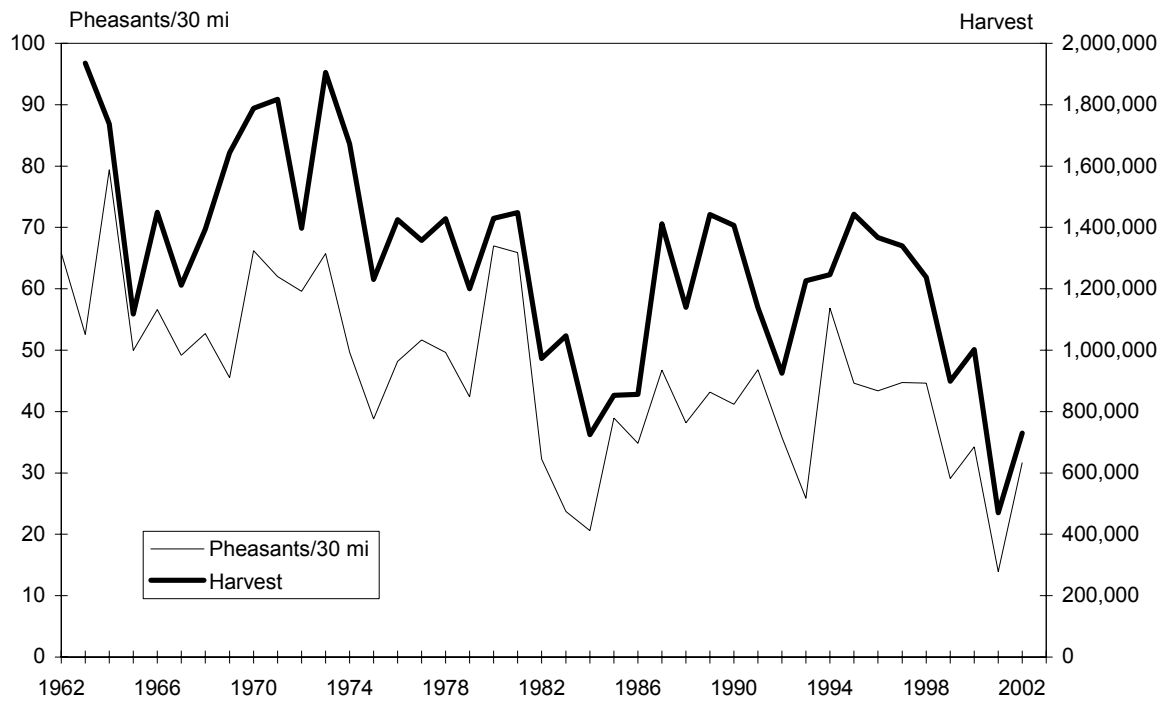


Figure 5.3 Statewide trends in pheasant broods and average brood size from August roadside survey

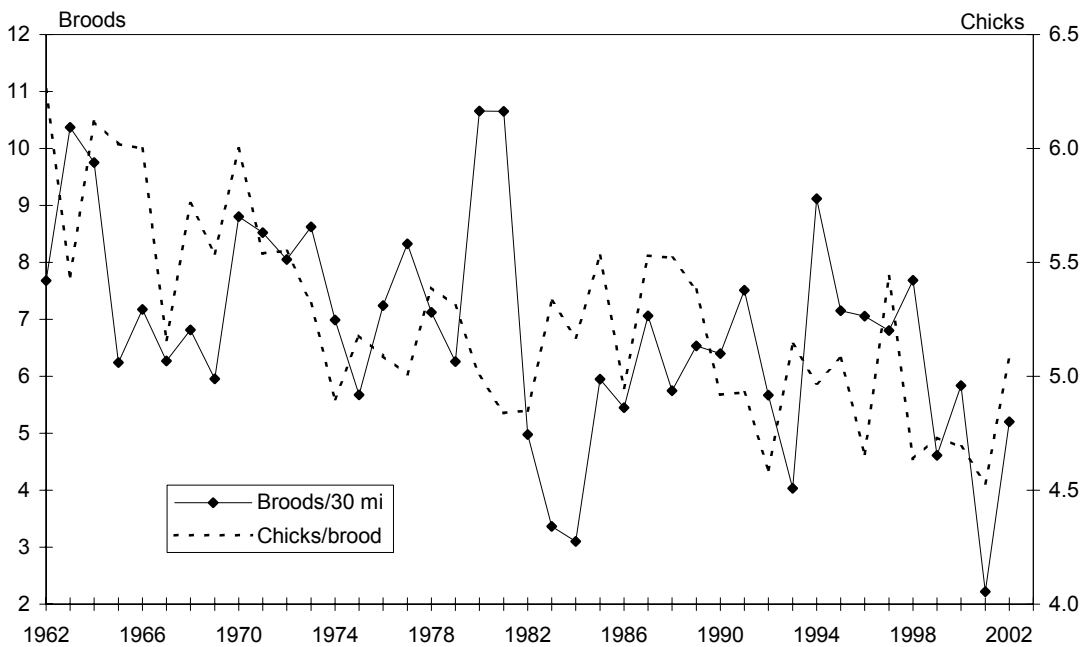


Figure 5.4 Statewide sex ratio and estimated cock harvest from winter pheasant surveys

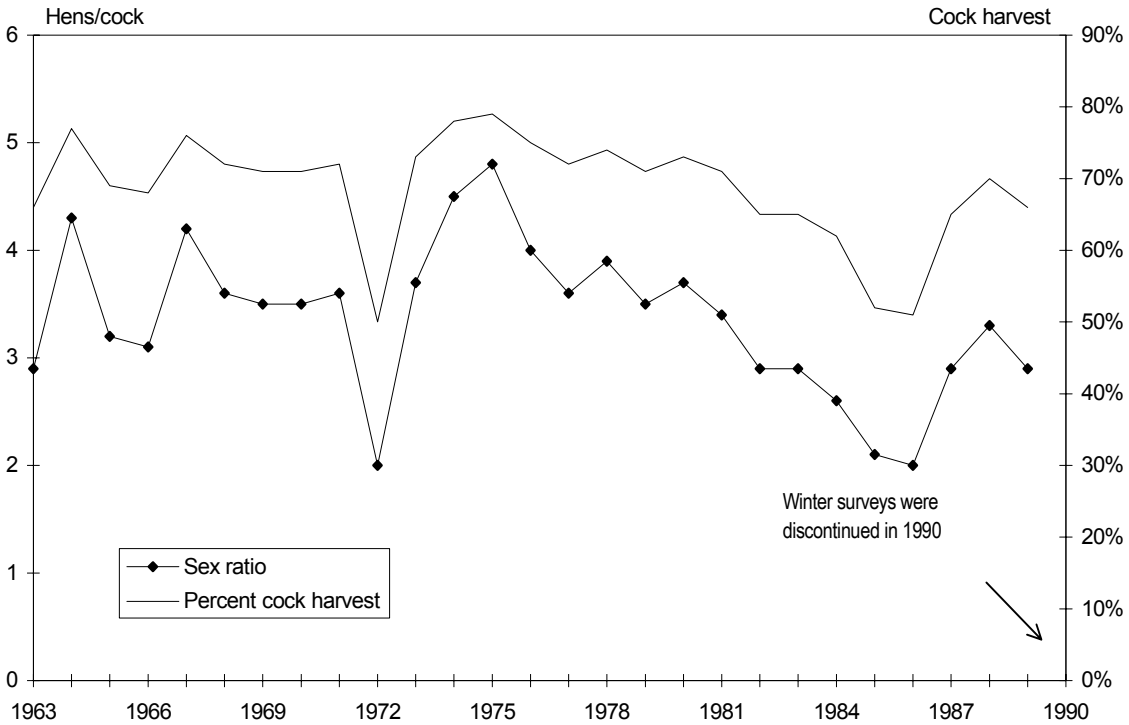


Figure 5.5 Statewide trends in pheasant hens with and without broods from August roadside survey

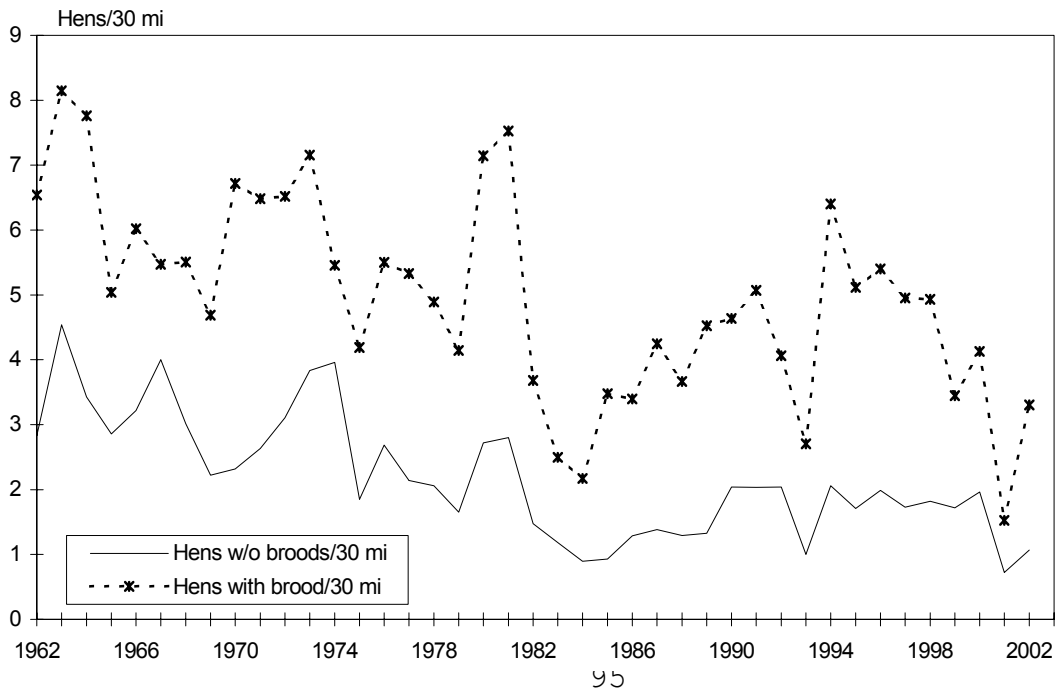


Figure 5.6a Statewide trends in small game harvests and August roadside survey counts

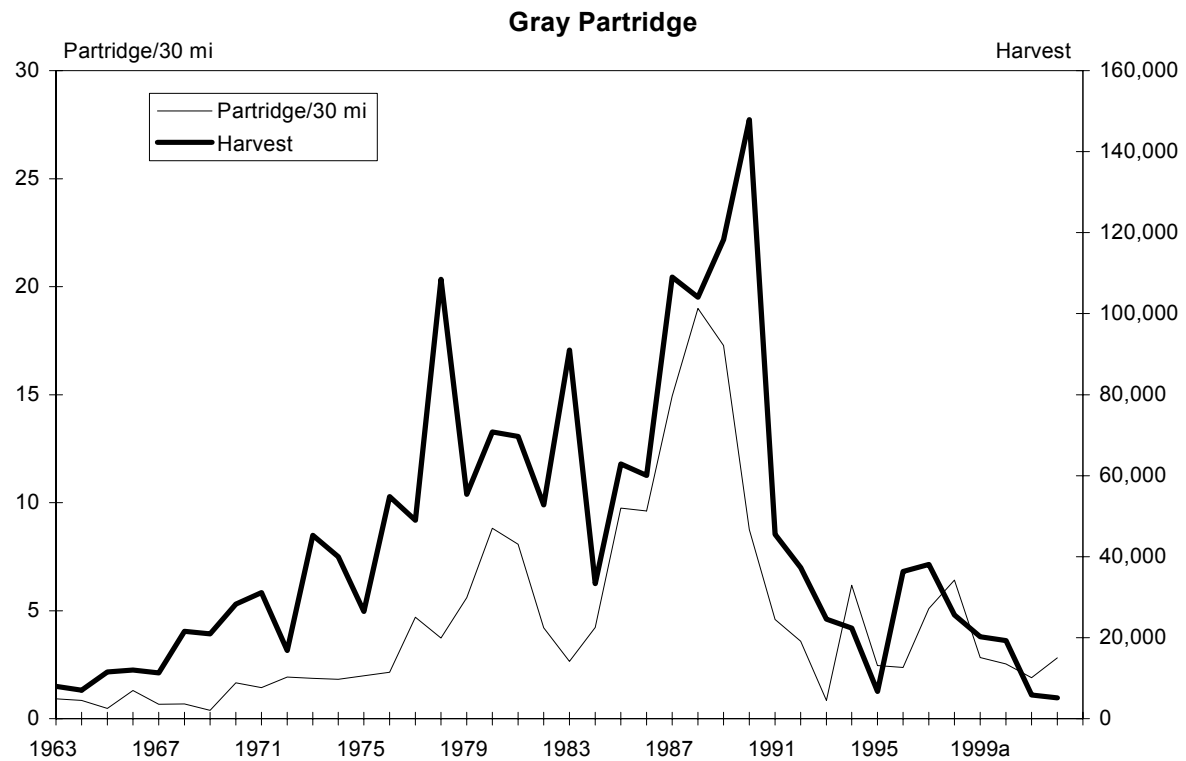
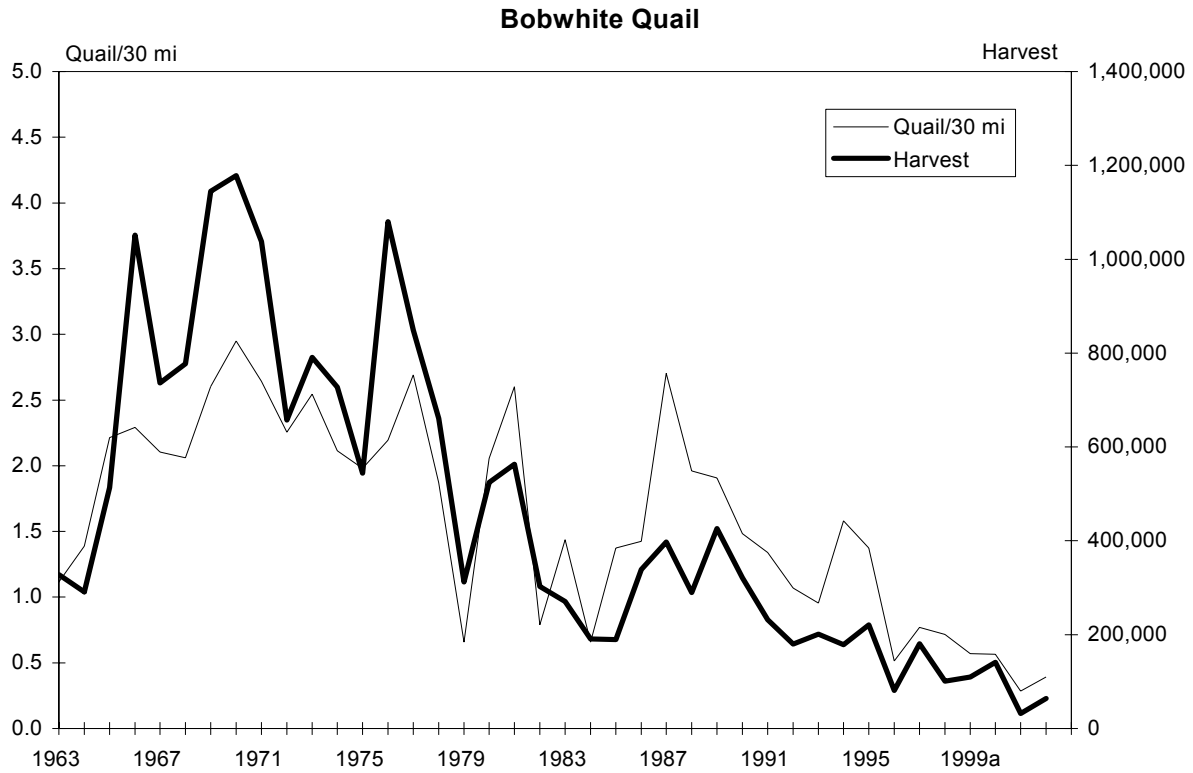
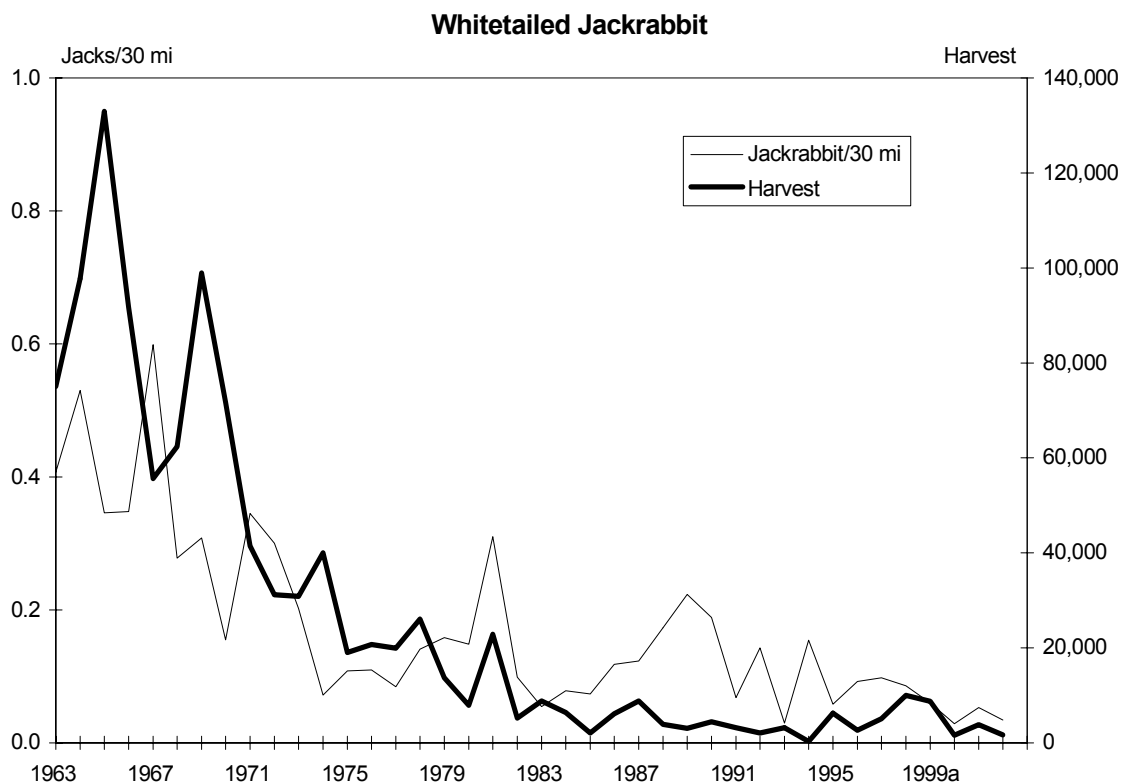
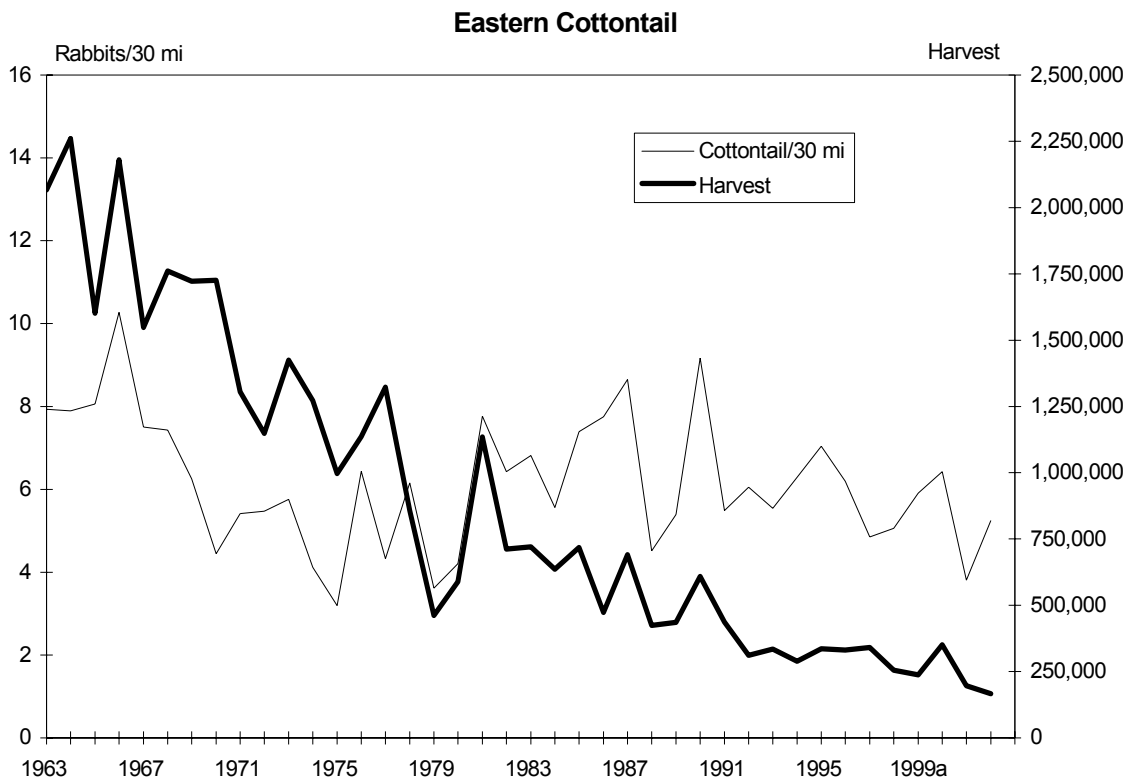
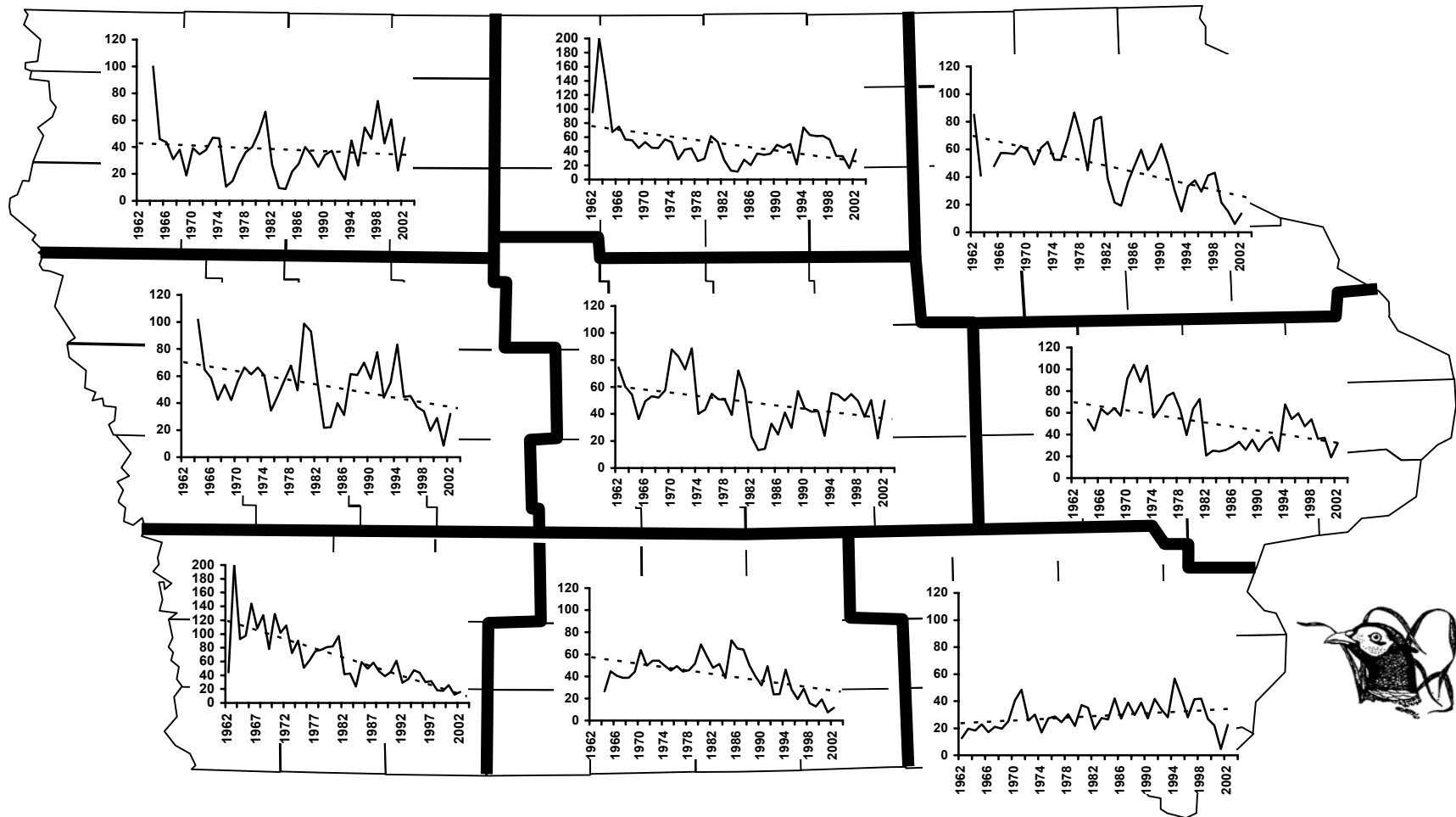


Figure 5.6b Statewide trends in small game harvests and August roadside survey counts





Legend

- Mean pheasants counted/30-mile survey route
- - - Long-term trend

Figure 5.7 Regional trends in ring-necked pheasant numbers from the August roadside survey (1962-present).

Note: Because of variation in historical counts, vertical axes among survey regions are not to the same scale.

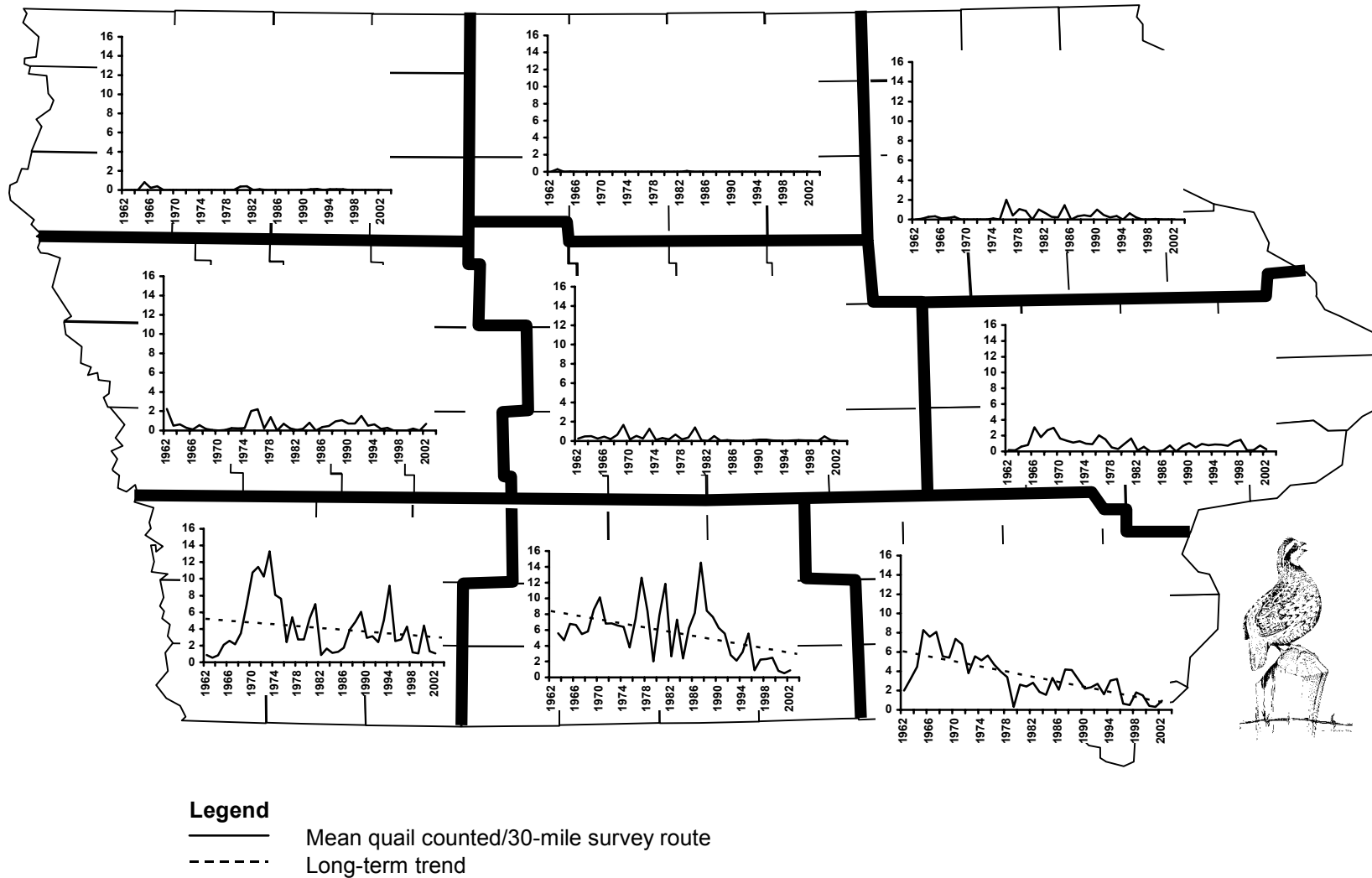
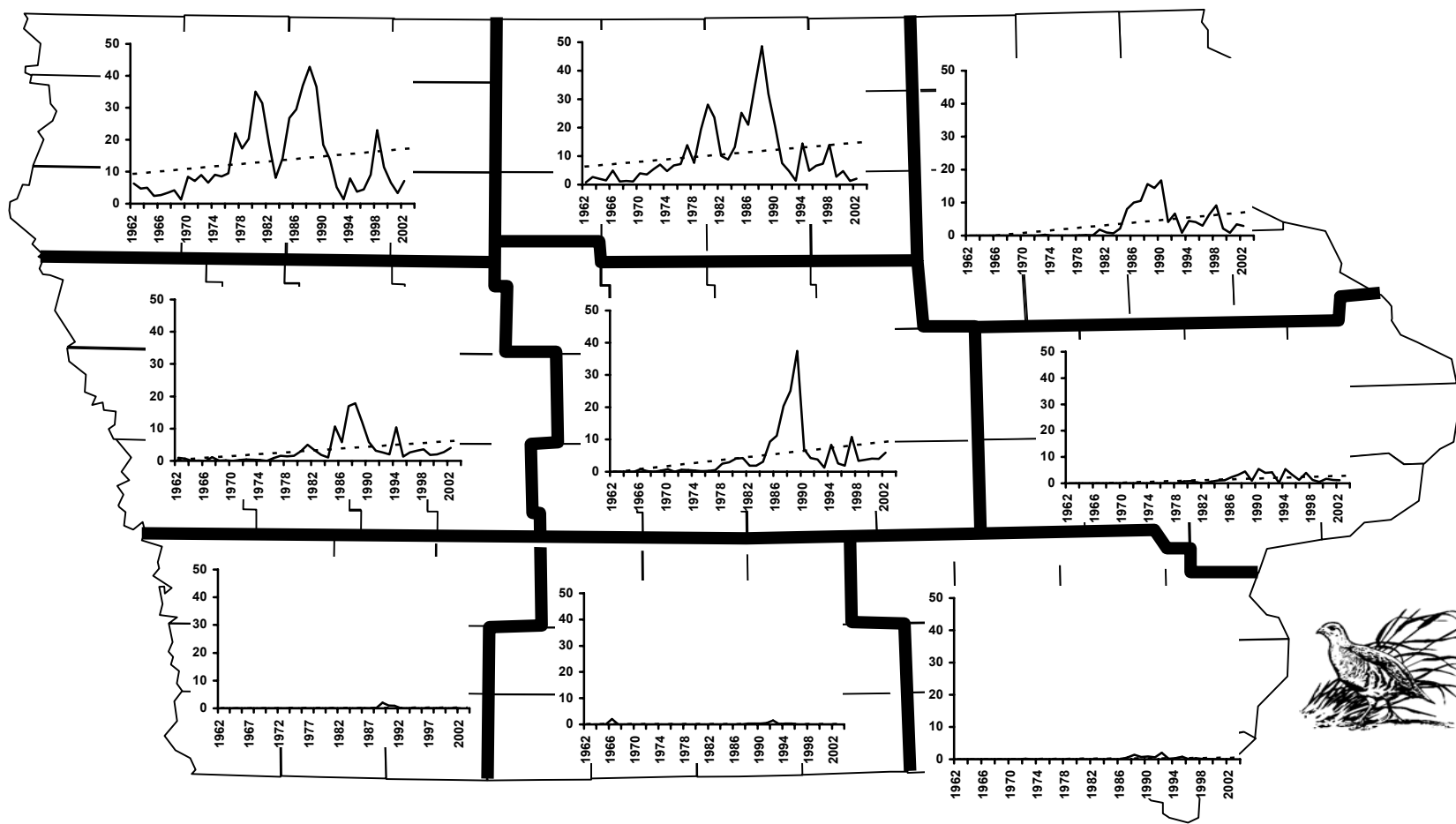


Figure 5.8 Regional trends in bobwhite quail numbers from the August roadside survey (1963-present).



Legend

- Mean partridge counted/30-mile survey route
- - - Long-term trend

Figure 5.9 Regional trends in gray partridge numbers from the August roadside survey (1962-present).

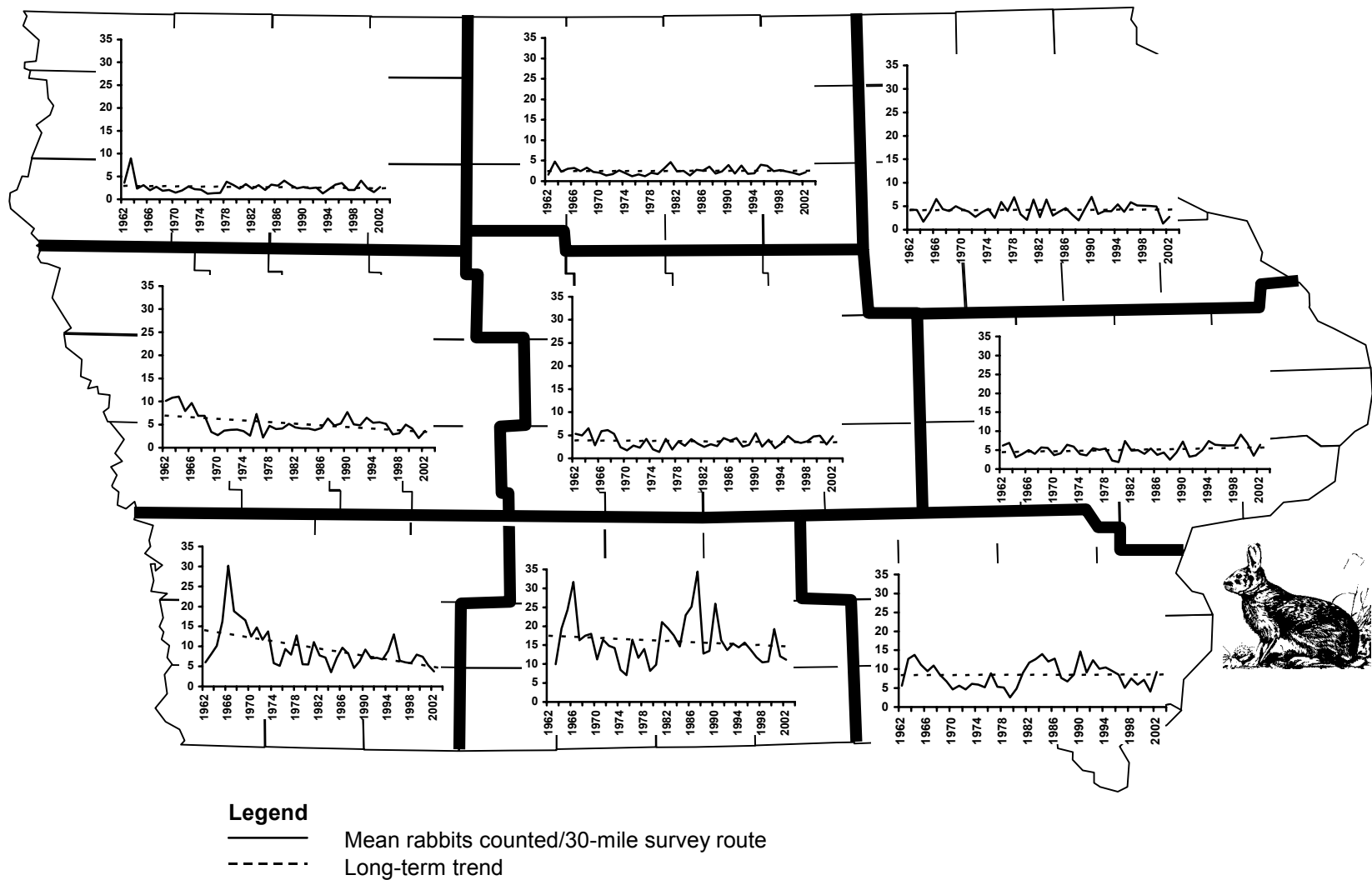


Figure 5.10 Regional trends in cottontail rabbit numbers from the August roadside survey (1962-present).

Figure 5.11 Sales of Iowa hunting licenses

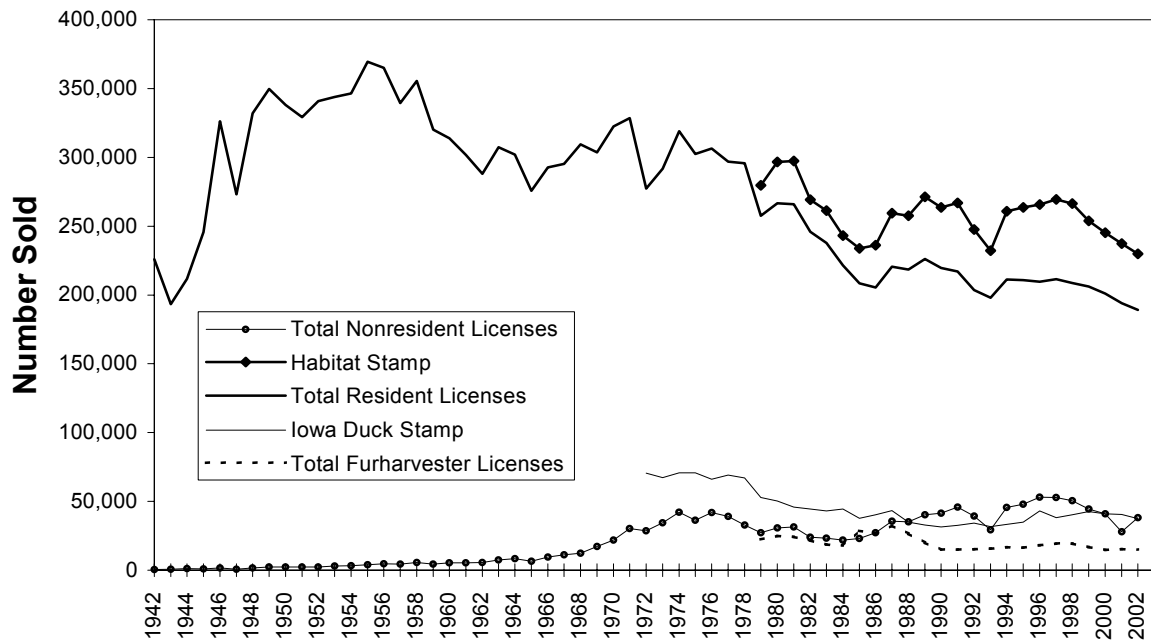


Figure 5.12 Estimated number of Iowa small-game hunters

